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Forestry and Cultural Sustainability in the Little Red River Cree Nation

by

Mark Nelson

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A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Arts

Department of Anthropology

Edmonton, Alberta
Fall, 2003

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Dr. Clifford G. Hickey

Dr. Milton M.R. Freeman

Dr. David Hik

May 23, 2003

Abstract

This thesis discusses attempts to balance commercial forestry with aboriginal subsistence harvesting in the Little Red River Cree Nation in northern Alberta. The discussion is framed within a theoretical context that views the practice of subsistence harvesting as vital for maintaining certain Cree cultural values and social relationships. The issue of balance is addressed from two perspectives: the need to mitigate impacts on the ecosystem so as to preserve sufficient habitat for harvesting, and the need to address socio-cultural changes in Cree society that may act as barriers to harvesting. The former point is addressed through a discussion of forestry policies and practices pertaining to aboriginal people, including treaty rights, co-management, and voluntary certification. To address the latter point, fieldwork experiences in the LRRCN are discussed, and the results of a harvest survey conducted in 2001, which also addressed social barriers to harvesting, are presented and analyzed.

Acknowledgements

I wish to thank Dr. Cliff Hickey and Dr. David Natcher for the opportunity to become involved in the Sustainable Forest Management Network's research program, and for their guidance in my fieldwork endeavours.

The research presented here would not have been possible without the help of the community members of the Little Red River Cree Nation, particularly those who aided in the research process. Thanks to Kayas Cultural College for financial and institutional support, and to all the summer students who carried out the harvest survey in 2001 and the mapping survey in 2002: Leah Laboucan, Conroy Sewepegaham, Lori Blesse, Jocelyn Nanooch, Viola Laboucan, Natalie Laboucan, Ruby St. Arnault, Iola Tallcree, and Denise D'or.

Special thanks to all those who offered me guidance, friendship, and trips to the bush: Paul Tallcree, Lorne Blesse, Lester Nanooch, John, Leslie Joe & Nelson Laboucan, Teddy & Clifford Ribbonleg. Thanks to Celestan Nanooch for all his efforts, advice, and of course for his moose stories.

Funding from the following organizations is gratefully acknowledged: The Sustainable Forest Management Network, The Canadian Circumpolar Institute, the Faculty of Graduate Studies and Research and the Department of Anthropology at the University of Alberta.

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1. Sustainability, Forests, and Aboriginal Cultures

The concept of sustainability has in recent years come to permeate discussions concerning natural resource management. The importance of sustainable resource use was emphasized on an international level in the Bruntland report that resulted from the World Commission on Environment and Development (Bruntland, 1987). Since then, the concept has expanded beyond the bounds of academic and political discourse and has become institutionalized in the industrial and public sectors. One might look to the recent establishment of the Department of Sustainable Resource Development in Alberta as evidence of this trend. Sustainability as a concept represents something of a middle ground between eager developers who foresaw (and at times still see) a reservoir of endless resources in North America and an environmentalist movement that would advocate total abandonment of all natural resource extraction and exploitation. While the specifics of the term "sustainability" remain contested (Duerden, 1992), the concept reflects the belief that industrial resource exploitation in a capitalist setting can indeed be reconciled with other non-monetary social needs. In this sense, it closely parallels theories of "ecological modernization" advanced by European academics in recent years (Mol, 1997; Spaargaren, 1997). Within this theoretical framework, industrial capitalism and environmental health are not held to be structurally incommensurable, as many critics argue. Within a sustainable use context, environmental critics and social advocates pressure the industrial sector that exploits renewable resources (non-renewable resource use can by definition never be sustainable) to devote greater attention to the future impacts of their actions, rather than focussing upon immediate financial returns. Those who would dance along a fine line of sustainability are feeling growing pressure to stand firmly upon the "long-term" side of the ecological fence. In Canada, the forestry industry is currently the largest developer of renewable resources, and is thus at the forefront of sustainability issues. The fishing industry is another, and stands as a shining example of the disastrous impacts that can result from lack of foresight (Haedrich and Hamilton, 2000).

1.1 Defining Cultural Sustainability

Amid this increased attention towards long-term environmental productivity in resource development regimes, there has also come an ever-growing call to expand the concept of sustainability beyond the resources themselves, and to include other social values that exist in natural settings (Beckley, 1998a). These social values are particularly embodied in forests, which provide the setting for a whole range of recreational uses, and which represent for many a vestige of non-urbanized wilderness. For aboriginal peoples, the social value of forests goes yet further. For many of them, forests are their homes and their history, where generations of their ancestors have dwelt before them. In Canada, over 80% of aboriginal communities lie within the boreal forest (Natural Resources Canada, 1998). The Little Red River Cree Nation (LRRCN), which is the focus of this work, is among them. Virtually all of these communities continue to derive some measure of their livelihood from the forest through subsistence harvesting[1] of animals and non-timber forest resources (NTFR)[2] such as berries, edible plants and medicinal plants. Further, aboriginal peoples have been assured of their continued rights to rely on the land for subsistence through the recognition of treaty and aboriginal rights. Many recent court cases (which are discussed at length in section 2.1) have upheld and clarified these rights *vis a vis* those of other land-users, and have held that aboriginal peoples have a unique position among forest stakeholders.

The importance of the forest to the aboriginal peoples who live there cannot be overstated. Subsistence harvesting is not only economically important to First Nations; the active processes of harvesting and their physical settings form the nexus of spiritual values, social relationships, and symbolic expressions that define aboriginal peoples' identities. The resilience of these harvesting regimes and their underlying cultural systems in northern aboriginal cultures came to public attention largely through the Mackenzie Valley Pipeline Inquiry (Berger, 1977), which generated a good deal of research for social impact assessment purposes. Prior to this, the north and its peoples were largely perceived as lands in limbo, no longer "traditional" but still awaiting modernization efforts from the south. Since that time, anthropological explorations of the forest's significance in aboriginal cultures have had a long and continuing tradition. Any author who discusses the forest in relation to these cultures can scarcely avoid addressing the sacred relationship between them that is embodied in subsistence harvesting. Tanner (1979) explores the dialectic relationship of hunting practices and religious ideology among the Cree of Mistassini. Nelson (1983) describes the way that the Koyukon of Alaska perceive the forest and its inhabitants in relation to themselves. Brightman (1993) explores the relationships of humans and animals as perceived by the Rock Cree of northern Manitoba. Ingold (2000) discusses the physical environment as a setting for the development and enactment of culturally-based knowledge and skills among aboriginal peoples, and the implications for their perception of their environment. This list of literature could be extended *ad infinitum*, but suffice it to say that the significance of forests and forest-based subsistence harvesting among aboriginal cultures has been well documented.

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[1] The term "subsistence" as it is used here refers to the direct use of forest resources to meet one's survival needs, rather than exploitation intended to produce monetary revenue to be used for other purposes. Trapping may initially appear to fall outside this category. However, revenue obtained through trapping has almost always been re-invested in tools and equipment required for modern hunting and gathering, and thus may be considered a part of subsistence.

[2] The term "resources" is employed here rather than the more common term "products" in order to emphasize the social value of forest resources for Crees rather than implying that they are commodities (cf. Perez and Byron, 1999).

From the perspective of First Nations, then, preserving the viability of the forest ecosystem is not simply a matter of sustaining social values, but a matter of sustaining vital infrastructure that is necessary to perpetuate their culture. Susan Wismer defines cultural sustainability as:

> a development/resource use process that meets the cultural /material needs of present generations, without compromising the ability of future generations to retain their cultural identity, social relationships and values, and for the management of human-use of resources which is consistent with the cultural values of a peoples (cited in LRRCN, 2000b, 2001b).

For the aboriginal peoples of the boreal forest, reproducing the culture of the past requires continuous access to the forest and forest based resources. This is necessary in order to maintain the subsistence harvesting regime that has formed the basis of the social relations and spiritual beliefs that persist today in aboriginal communities. The concept of cultural sustainability represents a challenge to those who would adopt narrow definitions of forest sustainability that focus only upon resource reproduction to the exclusion of cultural reproduction. Any concept of sustainability in a context involving aboriginal peoples must account for subsistence harvesting in the course of land-use planning.

When referring to culture, the term sustainability should not be taken to indicate an infinite and unchanging reproduction of the present. Culture is by definition learned, and is therefore adaptive and malleable through the learning processes of subsequent generations. Wismer's definition is couched in the terminology of natural resource management in order to address cultural matters within those terms of reference. As such, it probably presents a somewhat rigid and synchronic view of cultural continuity. The use of the term "sustainability" in this work is not intended to advance an agenda of cultural purity, wherein an aboriginal culture must remain unchanged in order to retain integrity. Neither is it intended to reduce the issue of generational reproduction of culture to the simplistic terms of natural resource reproduction. Culture can not "run out" as resources can, but is instead infinitely renewed, albeit in altered forms that are dependent upon the context at hand. First Nations communities have been undergoing a continual process of change since their formation, and their ability to adapt to new circumstances must be acknowledged.

However, adaptability does have its limits. Many of the core values and ideals of aboriginal peoples result from the practices of hunting and gathering from which they have traditionally derived their livelihood. The maintenance of these practices in some form is essential for sustaining these core values. This is becoming increasingly difficult in the face of social and economic re-organization, coupled with existing and imminent resource development. During the course of my fieldwork (to be outlined in section 3.1), I interviewed several Cree people about the values people derive from being in the bush and being engaged in subsistence harvesting activities. The list of responses includes respect, humility, resourcefulness, carefulness, and generosity, to name but a few. I asked if these values could be learned outside of the bush, in the community setting. Most people were sceptical, and stated that things come too easily in the community, that one is always guaranteed food and money, even if they do not work. For those who do work, they said, life in town if often more about the individual, about trying to get ahead rather than to get by. Their scepticism is not a product of nostalgia for a lost lifestyle, but is rather the result of the evidence before their eyes. Those who spend no time in the bush often lack the values and ideals that Crees[3] champion. One woman compared her two sons for me, one raised "in the bush" and one raised in town, and noted the difference in respectfulness between them. In a study of community health in the LRRCN, Crabbé (1998) found that those men who spend time in the bush are better able to cope with the demands and challenges of community life. In the minds of my Cree consultants, the inability to spend time in the bush compromises the ability of future generations to maintain certain key aspects of Cree cultural identity. Many of the traditional roles in Cree society were based upon the realities of bush life (e.g. the division of labour by gender, elders acting as teachers). Since the move onto reserves, many of these roles have been disrupted, particularly those of men, who cannot very well fulfill their role as providers if no employment is available (Crabbé, 1998: 3; Fienup-Riordan, 1986: 308). Schooling has impacted the teacher/student relationship between elders and youth; elders in many cases cannot instruct the young in the practical skills they will need to make a living in the modern world. Younger Crees must often provide for older ones, which reverses the traditional social hierarchy where older, more experienced hunters aided the younger ones (Fienup-Riordan, 1986: 309). All of these changes have very real consequences for community well-being, which are measurable in definable terms such as rates of suicide, alcohol and drug abuse, and family violence, to name only the most easily quantifiable frames of reference; general disrespectfulness and irresponsibility might also be included here. This pattern of social anomie resulting from the shift to large, permanent settlements and cash economies is typical of aboriginal communities across the north (Damas, 2002). In these places, it is often unclear from where the next generations will derive their identity if not from the bush lifestyle.

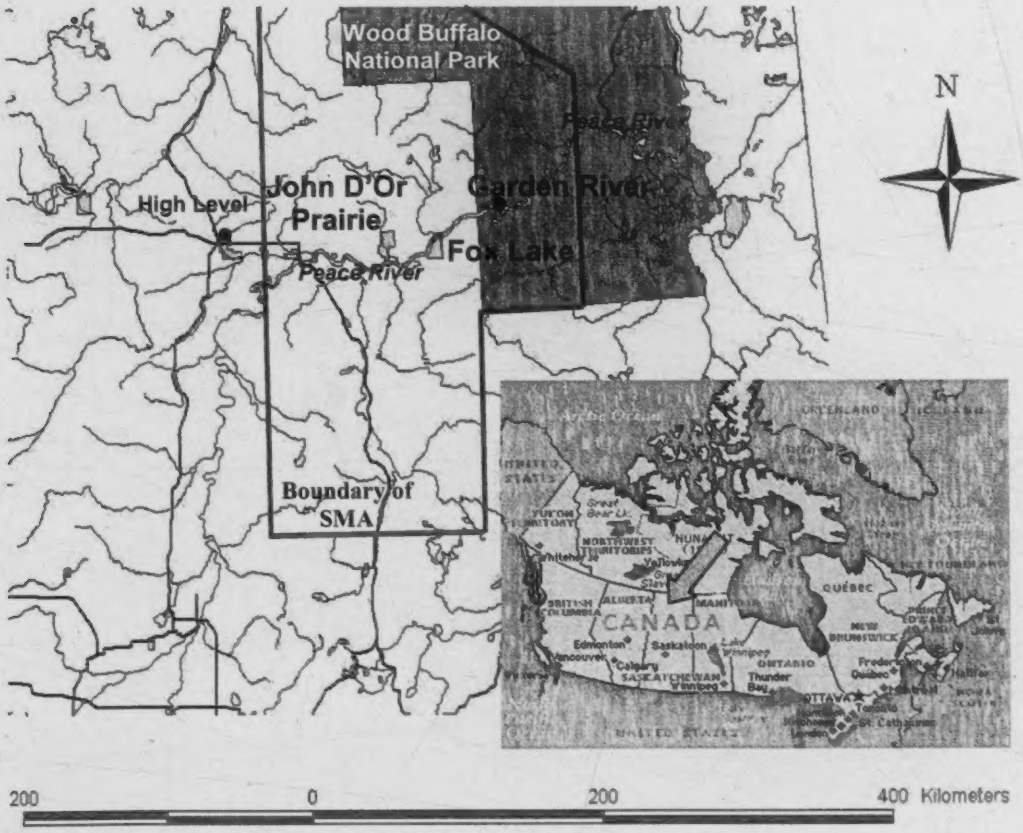
1.2 Geographic and Economic Context of the Little Red River Cree Nation

The problems described above are common to most First Nations communities in Canada, especially those in the north, which have experienced the effects of colonialism somewhat more recently than their southern neighbours. This aptly describes the LRRCN, where I have conducted two seasons of fieldwork over the past two years. The Nation is comprised of three communities lying along the lower Peace River in northern Alberta: John D'or Prairie (pop. 800), Fox Lake (pop. 1300), and Garden River (pop. 400) (Figure 1).

---

[3] Throughout this work, I employ the term "Crees" to refer to the people of the LRRCN, with whom I have direct experience. Any comments made in this fashion refer specifically to them, although they likely have applicability for other aboriginal groups as well.

Figure 1. Communities of the Little Red River Cree Nation, with Approximate Boundary of the Caribou-Lower Peace Special Management Area (SMA).



Original map by Rick Pelletier and Tanja Schramm (modified by Mark Nelson)

These communities were only formed between about 1959 and 1969. Prior to this, people followed a seasonal round of subsistence hunting, gathering, and trapping. They moved through the bush in extended family units, emerging several times throughout the year to congregate in larger numbers at the mouth of the Mekkwa (Little Red) River, where the Hudson's Bay Company had established a trading post (Lore, 1990). Fox

Lake and Garden River became permanent settlements sometime around 1959, while John D'or Prairie was settled approximately ten years later. Garden River lies about 10 km inside the western boundary of Wood Buffalo National Park (WBNP), and as such does not have official reserve status as the other two LRRCN communities do. John D'or Prairie can be accessed from High Level, the nearest major town, by an all-weather road; both Garden River and Fox Lake have access via seasonal roads, which can become impassable during the summer following even modest rainfalls. As such, these two LRRCN communities are quite isolated compared to many other First Nations communities, which has certain social and economic implications. Cree language and cultural institutions remain especially strong in the isolated communities. Many children do not begin to speak English fluently until they start to attend school, and an English conversation between adults is rare. Traditional forms of knowledge transmission (personal, rather than institutionalized) and ceremonial practices are commonly observed. Isolation, coupled with the perseverance of Cree language and culture, has also helped to limit the alcohol and drug abuse that commonly plagues First Nations.[4] However, isolation also increases the price of the few local services that do exist, and limits the ability to obtain outside economic or educational opportunities.

The LRRCN lies within the boreal-mixedwoods ecoregion, which is dominated by balsam poplar, white spruce, aspen, numerous tributaries of the Peace River, and a great deal of muskeg and swamp (Schramm, 2002). The Caribou Mountains, which lie to the north of Highway 58, are also part of the Nation's traditional use area, and are classified as a boreal-sub-arctic ecoregion that includes the tree species mentioned above in addition to black spruce and jack pine (*ibid.*). This mosaic serves as the habitat for the various animal species that LRRCN members continue to rely upon for subsistence, particularly moose, waterfowl, and various furbearers.[5] However, this region also has value for industrial natural resource developers, who have been active in the area for several decades. Resource extraction in the area (oil, gas, and timber) is currently governed by provincially-granted land tenures to corporate bodies, and is also influenced by a Memorandum of Understanding (MOU) between the LRRCN, the Tallcree First Nation (TCFN), the Province of Alberta, and locally operating forestry corporations (Tolko Industries and Footner Forest Products). This MOU applies to a region designated as the Caribou-Lower Peace Special Management Area (SMA), which encompasses part of the traditional use areas of the LRRCN and TCFN (see Figure 1 above). The MOU and its effects upon forest activities will be discussed at greater length in Section 2.2. At present, logging is the major resource extraction activity in the SMA, which supplies two large mills in High Level, about 150km west of the John D'or Prairie. Tolko Industries currently holds tenures for coniferous stands throughout the area, while Footner Forest Products holds deciduous tenures which supply its OSB (Oriented Strand Board) plant. Both the LRRCN and the TCFN hold significant timber tenures throughout the area, which are generally harvested by band-owned companies and then sold to the mills in High Level. In total, the annual allowable cut (AAC) for the region amounts to 1000 hectares (Natcher and Hickey, 2002), or over 900,000 cubic metres (Ross and Smith, 2002).

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[4] Differences in character between John D'or Prairie and Fox Lake/Garden River are widely acknowledged within the Nation, and are attributed to the strength of Cree language and culture in the latter communities that results from their relative isolation.

[5] Bison were once a mainstay of the local Cree diet prior to their decimation by disease.

The potential for other forms of resource extraction continues to grow as industrial activity in Alberta, and the north in general, increases. The Caribou Mountains region has been explored for oil and gas since the 1960's, but major sustained development has yet to occur; several oil companies currently hold exploration tenures in this region (LRRCN, 2000a). The lands of the neighbouring Dene Tha First Nation are currently the site of much oil activity, where efforts are underway to build First Nations/industry partnerships. Oil extraction certainly has the potential to spill over the boundaries of the SMA into LRRCN territory. The same scenario is true of mineral and precious metal extraction, which is growing at a tremendous rate in the nearby Northwest Territories. Two precious mineral companies currently hold exploration rights in the SMA, one of which has been active in the Caribou Mountains (*ibid.*). Resource extraction activities, along with pressure on First Nations to pursue them, is sure to increase given the improved ability to access and extract remote petroleum, timber, and mineral deposits.

Demographic information about the LRRCN indicates an extremely young population, with 75 percent of members being under the age of 30; this ratio is almost three times the Canadian national average (Indian and Northern Affairs, 2001). The birth rate is also well above average. In my experience it is quite common for a nuclear family to have seven or more children. Owing to this profile, the population of the Nation is expected to double within the next twenty years (Woodrow and Campa, 2001). This trend has drastic implications for both subsistence and industrial resource use in the area. There are insufficient employment opportunities to meet the needs of current band members, let alone future ones. At present, 70% of the population receives some form of social assistance (Webb, 2001). Yet, because of high freight costs, 99% of a monthly social assistance cheque is required to provide healthy food to a family in Fox Lake (Alberta Treaty 8 Health Authority, 2000). As such, many people continue to rely on subsistence harvesting to offset the high grocery costs that result from isolation and inaccessibility. Those who are employed often practice a form of mixed economic activity, combining subsistence harvesting with such seasonal employment as logging, tree thinning or firefighting. As the population grows, one can expect that there will be an increased demand for bush resources, barring a major immediate surge of local economic development. This need may bring harvesters into conflict with the interests of industrial developers, whose activities impact the habitat of various locally used food species (see section 4.1).

1.3 The Theoretical Context: Symbolism and Practice

It often seems that being an aboriginal person today means having the right to employ certain symbols in defining one's personal identity as much as it means the right to use certain resources. This is particularly true for those aboriginal people living in urban communities, whose lifestyles are often not apparently different from those of other Canadians. Aboriginal people employ various emblems, clothing styles, symbols and ceremonial practices in order to distinguish themselves from others: dreamcatchers, the medicine wheel, and clothes decorated with beadwork are commonly encountered symbols. Traditional ceremonial practices such as sweat lodges, fasts, and blessings are enjoying a revival among urban aboriginal peoples (Kulchyski et al., 1999: xxiii). These activities denote an allegiance to certain ideas and values that are held to be integral to aboriginal identity, including spirituality, unity, and respect, among others. While regional differences between aboriginal groups exist and are recognized, there has developed among them a broader sense of cultural unity and common identity, with the core values mentioned above connecting them. It is increasingly understood within Native Studies scholarship that in the future, aboriginal peoples will draw upon this well of common heritage in order to forge a new self-concept within modern Canadian society, even though their actual lifestyles will differ markedly from those of their ancestors (Newhouse, 2000).

These concepts are most applicable to those aboriginal people who reside in urban settings, and indeed are quite valid and valuable in these contexts. They are less relevant, however, to the large number of rural dwelling aboriginal peoples, particularly those living in the isolated communities of the north. For these people, the traditional bush lifestyle does not merely represent a symbolic heritage, but rather survives as lived experience. The bush lifestyle does, of course, possess a symbolic value that reflects a uniquely aboriginal self-concept; indeed, people have become more conscious of its symbolic value as its viability becomes increasingly threatened (Fienup-Riordan, 1986: 316). Still, this lifestyle does not retain its symbolic vitality by existing as an abstract concept. Rather, its value is constituted and maintained through the practice of subsistence harvesting and related activities on the landscape. Enactment serves to define publicly one's social position with regard both to the animals as they exist in Cree cosmology and to other Crees who share similar lifestyles and beliefs. As discussed above, being in the bush and interacting with the landscape and animals produces certain characteristics, values, and skills in individuals. The practice of harvesting also serves to maintain social networks between people who share a common worldview that is rooted in their relationship to the land and animals. All these practices collectively serve to reify a set of values and beliefs that otherwise would only exist in abstract form.

In this section, I shall attempt to understand subsistence harvesting, along with its social context, within a theoretical framework that examines the relationship between symbolism and practice. There is quite an extensive anthropological history of this approach, and good reason to employ it in the present case. I shall argue that the symbolic and material values of subsistence harvesting are inextricably linked and cannot be maintained in any meaningful way without one another. Symbolism in this case is best understood as the relationship between an idea and a practice, and cannot by itself maintain influence in people's lives should the practice of harvesting cease. This discussion is not intended to validate or contribute to any theoretical orientation; my agenda here is more practical. The ideas presented will serve as analytical tools to illustrate how subsistence harvesting relates to the concept of practice within social theory, and thereby to forecast the consequences of changes in practice.

Elucidating the relationship between the practices of individuals and the cultural norms they have learned is arguably the central task of anthropology, at least in North America. In this way, the early discipline distinguished itself from those who were concerned with the collection and/or description of material culture or strange customs of exotic cultures. For anthropologists, "thick description" was (and is) just the beginning (Geertz, 1973), a means to end (thick interpretation), rather than an end in itself. Within North American anthropology, "culture" has generally been understood to exist in the minds of individuals rather than being the sum product of their outward actions (Darnell, 2001: 12); the latter is understood as a reflection of the former, and it is this reflection that is of interest. The early North American discipline differed in this way from its early European counterparts, which tended to focus more specifically on social structures. Radcliffe-Brown's structural functionalism, for example, sought to explain individuals' actions in terms of how they functioned to create social coherence, rather than in terms of their symbolic meaning for the individual. For Levi-Strauss, the analysis of myth yielded a structural map of the mind rather than an understanding of the meaning of myths for the culture in question. In contrast, the primary task of the Americanist anthropologist[6] has been to collect large amounts of data through extensive fieldwork and then to interpret them *from the perspective of the particular culture in question*. Hence the early emphasis on language within the discipline; ethnographers would ideally learn the language of those they studied in order to achieve an emic understanding, or at least employ translators to help deliver first-hand cultural accounts (as Boas did).

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[6] I borrow the term "Americanist" from Darnell (2001) who argues convincingly that a set of core tenets has formed the basis of most of North American anthropology since Boas' time, including the internal/symbolic concept of culture, cultural relativism, and the emic interpretation of cultures. There have of course, been notable exceptions, such as Julian Steward, Marvin Harris, and Alfred Kroeber, who all sought to develop more structurally-oriented theories of culture.

While the tenets of this interpretavist position implicitly underlay most early anthropology in North America, they were not often outwardly stated, probably owing to the Boasian dictum that interpretation should never precede a large accumulation of ethnographic data. In subsequent years, the interpretavist position has been most explicitly articulated by Clifford Geertz in *The Interpretation of Cultures* (1973). Geertz understands culture as a system of symbolic beliefs and meanings that in turn motivate and shape the actions of individuals, though he does not view these symbols in superorganic terms. Rather, these symbolic values derive their substance through public enactment, and are simultaneously expressed, renewed, and at times modified in this enactment. Thus, to understand culture as it is witnessed during the course of ethnographic fieldwork, one must come to know the relationship between people's actions, the beliefs they have internalized through a lifetime of learning, and the symbolic forms that represent those beliefs.[7] Culture, in these terms, is not understood as an abstract, superorganic body of beliefs that determines people's actions, nor as an independent series of unrelated behaviours that are dictated by the individual. It is rather the relationship between the individual's actions and what he or she has learned that becomes the focus of anthropological inquiry.

Outside North American anthropology, the relationship between internalized culture and individual practice has probably been best articulated throughout the work of Pierre Bourdieu. Like Geertz, Bourdieu sees culture as a series of human actions that are derived from learned beliefs. However, he is less concerned than Geertz with the symbolic meaning of these actions for individuals, and more concerned with issues of power, particularly with the relationship between personal autonomy and cultural (i.e. structural) determinism (Barnard, 1990: 66). People's normal actions, described by Bourdieu as habits, dispositions, and tendencies (1977: 214) are collectively termed the *habitus* of the individuals sharing a common culture (or sub-culture), and are motivated by internalized cultural norms. These individuals are said to operate within a "field", an abstract concept for delineating who does and does not share a specific *habitus*

---

[7] For Geertz, interpreting the symbolic meanings of actions was largely an independent exercise, a reading of a "text" which did not involve consultation with those being interpreted (at least not beyond the mechanics of the text; see, for example, his famous analysis of the Balinese cockfight [1973]). This approach is not accepted by many researchers, myself included, who believe in the ability of fieldwork consultants to provide self-aware input on the explanations of their actions.

(Bourdieu, 1983). Several sub-fields may exist within broader ones, and may overlap with many other fields. The field of anthropology, for example, exists within academia more generally, which exists within Canadian society as a whole. For Bourdieu, people's actions tend to fall within the bounds dictated by the *habitus*, but at times consciously push the boundaries of what is commonly accepted. He too sees culture not as a fixed set of norms that exist outside the mind, but rather as being in a constant process of internalization, external expression, and modification based upon human interactions in the real world. Thus, "[t]he *habitus* is not expressed in practice, it rather subsists in it" (Ingold, 2000: 162).

If the symbols of culture and people's practices are intimately linked, as suggested in the theories of culture discussed above, then changes to one side of this relationship must necessarily affect the other. In this conception, lack of enactment would lead to atrophy of the related symbolic values. Given this, it is questionable whether symbolic value would continue generate strong meaning and substance in the lives of individuals without concurrent practice. Condon et al. (1995) find that even those young Inuit who do not hunt or spend time on the land view subsistence harvesting and the relationship to animals as a central part of Inuit identity. However, these same youth are often personally troubled, and exhibit much behaviour that runs counter to the ideals of Inuit hunters, such as arrogance, greed, and alcoholism. The physical and spiritual experience of being in the bush and being engaged by one's surrounding has a palpable impact upon the mindset of the individual, which is then manifest in behaviours and attitudes that are valued by aboriginal peoples. Crees often state that one cannot understand the significance of the bush lifestyle within their culture without having been there. From an aboriginal perspective, gaining true knowledge requires direct personal experience rather than simply gathering information (Goulet, 1998). As one Inuit elder puts it, "I never say what I have heard, only what I have experienced, because I do not want to lie" (Angmarlik, 1999: 273). Researcher's inquiries into matters concerning hunting and spirituality are often met by informants with a certain degree of frustration or evasiveness, and an invitation to accompany them on a trip to the bush instead.

Besides teaching values and skills, the practice of subsistence harvesting also creates the infrastructure necessary to maintain the relationships between individuals.

Those who practice these activities together are typically kin (see section 3.2.4). Although their familial titles would persist even if they did not hunt or gather together, their relationship would be weakened by not expressing common values through shared practice. Kin relationships are also maintained through the distribution of the country foods obtained though subsistence harvesting (see section 3.2.3). Without foods to share, it is much more difficult to maintain these networks (Fienup-Riordan, 1986: 277). While relatives of course interact with each other in contexts besides subsistence harvesting, this does not adequately replace shared activity in the bush. Hunting and gathering are activities that locate Cree people within a cosmology that includes sacred relationships to animals, to the land itself, and thereby to the Creator. Being on the land with others expresses a cultural relationship of enormous depth, which is not as easily captured in more secular activities that they share, such as playing games or crafting.

1.4 Statement of the Research Problem and Approach

Within the concept of cultural sustainability outlined thus far, subsistence harvesting is understood to be a vital element of Cree cultural health. Harvesting activities provide not only material income in the form of usable goods, but also form the framework within which social and spiritual relationships between people, landscape, and animals are actualized and perpetuated. Yet, various social, economic, and ecological changes threaten the future viability of these activities. Growing numbers of harvesters will no doubt come into conflict with the growing presence of industrial resource developers. This may take the form of direct competition over access to lands, or may occur indirectly through the impacts of resource extraction upon the populations of prey species. In addition, the population of the LRRCN has almost certainly exceeded the carrying capacity of the surrounding land-base to provide sufficient bush resources for all of its members (see Pyc, 1998: 62 and section 4.1 below). Modern lifestyles therefore require access to cash, thereby necessitating schooling and employment, which are not very conducive to subsistence harvesting. Even hunting now requires access to cash, as harvesters have become dependent on certain equipment that they cannot manufacture themselves. Trapping is no longer profitable enough to pursue as a vocation, owing to the decline of fur prices. Subsistence harvesting, in this case, may fall by the wayside as more immediate needs are fulfilled.

Given the importance of these practices for Cree cultural health, it seems prudent to address the question: *What must be done in order to ensure the future viability of subsistence harvesting within the LRRCN?* The two immediately apparent criteria needed to meet this goal are: a) the presence of sufficient bush resources to allow sustainable harvesting, and b) the continued ability of LRRCN members to access and make use of these resources. This question is explored here both from the internal perspective of the LRRCN and from the perspective of external resource extractors in order to maintain a holistic approach to the problem. The relationship of these two groups will be explored in the context of impacts upon subsistence harvesting, as well as each party's interests and obligations in these matters. I shall explore the mechanisms that are currently in place to maintain subsistence harvesting, and highlight any areas that are lacking in this regard. Chapter 2 explores the perspective of the forestry industry, which mainly effects subsistence harvesting through the ecological impacts of its activities. The First Nation perspective is addressed in chapter 3, and focuses primarily on cultural and socio-economic matters. It is in this area that the Nation will need to focus its internal efforts in order to sustain subsistence harvesting. These may at first appear to be separate issues, yet it is vital that they are both addressed and that some relationship between them is elucidated if the goal of cultural sustainability is to be met. For their part, the LRRCN (2000b, 2001b) has adopted Susan Wismer's definition cited above as a basis for approaching issues of cultural sustainability; the modern requirement for economic development must not come at the expense of other socio-cultural needs.

The holistic approach adopted here is intended to fill a common gap in the literature concerning the future viability of subsistence harvesting. Those who support First Nations' traditional use in the face of industrial encroachment simply assume or imply that preservation of habitat will ensure the survival of aboriginal subsistence regimes. This is an ironically genetic concept of culture, where people of the present are understood simply to replicate the culture of the past from existing potentials (Ingold, 2000). In adopting this approach, they leave unaddressed the issues and challenges facing young aboriginal people today. Conversely, those who promote industrial development often exhibit an attitude of assimilation, and assume that the market economy is the only potential future for aboriginal peoples. Subsistence harvesting, in this conception, will look something more like recreation than cultural necessity, as it does among non-aboriginal Canadians (Usher, 1981). Neither of these polar extremes is very accurate or insightful. Difficult as it may be, some balance between the two is required in order to ensure truly healthy communities. The search for this balance has led me to take this bilateral approach to exploring the issue of cultural sustainability.

In order to explore my central question, I shall draw from written sources, and from the results and experiences of two field seasons spent in the LRRCN during the summer and fall of 2001 and 2002. Chapter 2 focuses upon the relationship of the forestry industry to cultural sustainability, primarily through a legal context and a market certification schema that includes treaty rights to hunt, fish and trap. As such, this section is informed primarily by the academic, legal, and industry literature on these issues. Chapter 3 addresses the issue of cultural sustainability from within the LRRCN, and as such draws more upon my fieldwork experiences there. These experiences include assistance in carrying out a harvest survey and a land-use mapping project, as well as semi-directed interviews and participant observation in hunting activities. The ideas addressed in Chapter 3 are grounded in the anthropological literature discussed in above, in which hunting and gathering are viewed in terms of their value to the identity of aboriginal peoples in addition to its obvious economic importance.

2. The Forestry Industry's Relationship to Cultural Sustainability

The current forest tenure allocation practices of provincial governments often include clauses that require public consultation on the part of the corporation that is receiving harvesting rights. The corporation is required to facilitate this consultation as a condition of being allocated timber resources on Crown lands. Aboriginal peoples, however, occupy a unique position within Canadian society and cannot be considered as part of the public as a whole. As Smith (1995) points out, these peoples are "not just another stakeholder" when it comes to interests in the forest, but rather have unique rights that are entrenched in the Canadian constitution. As such, they must be given special consideration by the forestry industry, apart from their other public consultation processes that focus upon various interest groups.

2.1 The Legal Context

Although the forestry industry may not have any direct interest in aboriginal cultural sustainability per se, the industry operates within a legal context that recognizes the treaty and aboriginal rights of First Nations peoples. The LRRCN is a signatory of Treaty 8, and as such possesses certain rights regarding use of the land. These rights were reaffirmed in paragraph 12 of the Natural Resources Transfer Act (NRTA) of 1929, which transferred jurisdiction over natural resources from Canada to the Province of Alberta. The most significant of these is the right of the treaty signatories of 1899, and their descendants, to "…pursue their usual vocations of hunting, trapping, and fishing throughout the tract surrendered…saving and excepting such tracts as may be taken up from time to time for settlement, mining, lumbering trading, or other purposes (Treaty 8 First Nations, 2002). Section 1.1 described how the practice of such "vocations" is essential for Cree cultural well-being. Insofar as forestry operations affect the environment in which hunting and gathering is practiced, the industry has a direct impact upon Cree cultural sustainability. Further, since the right to hunt and gather is legally protected, failure to consider the impacts of industrial forestry upon Cree culture could potentially result in legal challenges to forestry operations. The potential and rationale for such challenges is outlined below.

While the treaty does provide the Crown with the right to allocate lands for industrial development, rules of treaty interpretation established by the Canadian courts dictate that the "taking up" of lands for these purposes does not give the Crown free reign to interfere with aboriginal subsistence harvesting. According to the *Badger* decision (1996), interpretation of treaty rights must consider the perspective of the aboriginal signatories in 1899, who could not possibly have envisioned the scale of modern resource extraction and resultant ecological impacts (Ross and Sharvit, 1998: 647). Oral history concerning the aboriginal understanding of the treaty must also be considered, given that none of the signatories would have been able to read the written text of the treaty. Various testimonies by aboriginal peoples concerning the signing of Treaty 8, along with the reports of the treaty commissioners, indicate that the Indians would only agree to sign a treaty so long as their hunting activities would not be curtailed (Ross and Sharvit, 1998: 651). As such, they would not have agreed to grant the Crown rights to reallocate the land and resources to such an extent that it would interfere with hunting and trapping. Historical and oral evidence demonstrates that all the treaty signatories, including the Crown, believed that the carrying capacity of the land was ample enough to ensure the commensurability of any resource harvesting activities that the Indians and the Crown might wish to undertake. Indeed, many First Nations contend that their ancestors understood the treaties as agreement to *share* (not cede) their lands and resources (LRRCN, 2000a). Within the rules of treaty interpretation, the Crown's right to "take up" tracts of land for development must not be equated to the right to overrun aboriginal hunting grounds.

The general conclusion of the courts then, is that the treaties must be given "large and liberal interpretation" that favours the Indians in the case of any ambiguities (see *Simon v. R.* and *R.. v. Sioui*). Further, the courts recognize that there exists a fiduciary relationship between the Crown and First Nations, owing to the trust granted to the Crown by the Indians in the treaty negotiation process (see especially *R v. Guerin*). The Crown therefore has an overarching obligation to behave honourably and to uphold that trust. The Crown must consider the best interests of First Nations in its actions, including the allocation of resource harvesting tenures to third parties (Ross and Sharvit, 1998: 661). Thus, the right of aboriginal peoples to subsistence harvesting must be understood to supersede the Crown's authority to develop treaty lands, or to grant third parties the right to do so. Forestry corporations who harvest timber on treaty lands thus operate within a context where the rights of tenure granted them by the provincial government are limited by aboriginal subsistence interests. Ross and Sharvit go so far as to suggest that the current timber allocation regime in Alberta, which does not require the Province to consider aboriginal harvesting data, may constitute a *prima facie* infringement of treaty rights (1998: 677).

The primacy of treaty and aboriginal rights does not, however, altogether preclude the possibility of industrial development, even if that development affects subsistence harvesting. The 1990 Supreme Court decision in *R.. v. Sparrow* established that the Crown may infringe upon treaty and aboriginal rights in order to fulfill a valid legislative objective; industrial development that benefits Canadians was cited as one such objective. The decision outlined a framework to govern such infringement, stating that the infringement must be minimized as a much as possible and that the affected aboriginal peoples must be properly consulted in order for the Crown to fulfill its fiduciary obligation. Subsequent decisions such as *Delgamuukw v. British Columbia* and *R. v. Gladstone* reaffirmed and clarified the concept of consultation with First Nations. *Delgamuukw* stated that the level of consultation required should be proportional to the scale of the impact of the proposed development upon aboriginal or treaty rights (Davis and Company Barristers, 1998). If the infringement is severe enough, aboriginal *consent* may be required for the project to proceed. Further, it is ultimately the responsibility of the Crown, *not* resource developers, to conduct consultation with First Nations (Sharvit et al., 1999: 8).[8]

In practice, however, it is often the case that the Crown passes off its fiduciary duty of consultation to resource companies operating within First Nations' traditional territories (Natcher, 2001: 115). In some cases, consultation responsibilities may be incorporated directly into a forestry company's tenure arrangement, as is the case with Alberta Pacific's FMA in Alberta (Robinson and Ross, 1997). At other times, consultation is understood to occur through other industry regulations, such as the directive within the *Canadian Environmental Assessment Act* to involve aboriginal communities in environmental impact review processes (Natcher, 2001: 115). The Crown's delegation of duty is not, however, legally sufficient to discharge its fiduciary obligations to First Nations (Sharvit et. al., 1999: 9). Further, consultation by forestry corporations that is based upon industry standards for impact assessment runs the risk of being judged inadequate by constitutional standards. In such a case, industrial developments may remain open to protest by First Nations despite the corporations' best efforts at consultation.

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[8] However, the recent decision *Haida Nation v. B.C. (Minister of Forests)* states that a forestry company may also be required to participate in consultations with First Nations because they are implicated in the fiduciary relationship and because they have direct influence over the day-to-day operations on the land.

It would thus be in all the parties' best interests to have a clearly defined and standardized consultation process that adequately addresses constitutional issues based on the standards developed by the Canadian courts. Such a process would ideally occur prior to the allocation of resources for industrial development, in order to avoid any future claims concerning infringement of rights. Unfortunately, all of the land in Alberta has currently been allocated for timber harvesting in the form of FMA's, leaving all the parties to deal with the situation as it stands. In the absence of any sufficient regulatory regime to govern consultation, some industry parties have elected to pursue proactive approaches to consultation with First Nations and the accommodation of treaty rights in order to avoid conflict. The establishment of various forms of co-management agreements has become a common method of facilitating communication between First Nations, the forestry industry, and government, in an effort to avoid costly and lengthy litigation processes. Such has been the case between the LRRCN and locally operating forestry companies.

2.2. Co-management as a Tool for Cultural Sustainability

Co-Management presents First Nations and industry the opportunity to move beyond a confrontational relationship that is based on the threat of litigation. While still grounded in the current legal context, parties involved in co-management have the potential to define their own mandates, goals, and terms of reference. These may address cultural matters more directly and more specifically than does the currently accepted legal framework. In short, conflict may be avoided by going above and beyond the ever-changing and uncertain legal bottom line. While at times difficult, co-management embodies a more amicable, and infinitely cheaper, approach to settling natural resource disputes. Pinkerton (1992) reports that several Oregon forestry companies spent an estimated $50-60 million on litigation with First Nations in one year, compared with $13 million a year on co-management after reaching a cooperative agreement.

For First Nations, co-management also presents the opportunity to interact with other authoritative bodies as equals, or at least in a more equitable relationship than previously existed. In doing so, their ability and authority to manage their own natural resource use is acknowledged. Natcher (1999) describes co-management as a form of "institutionalized adaptation", whereby aboriginal cultural institutions adapt to new circumstances in order to ensure their continued survival. Through this adaptation, co-management also helps to preserve certain existing aboriginal institutions pertaining to the self-management of natural resource harvesting, including aboriginal systems of land tenure (Usher, 1993; Feit, 1973) and harvesting regulations (Berkes, 1999; Scott, 1986). The presence and effectiveness of such cultural systems has tended to be overshadowed by imposed state management systems (Berkes et al, 1991). A whole philosophy (and even dogma) concerning the virtues of third-party resource management by non-users has been promoted at the expense of local approaches that have met with at least as much, if not more, success in achieving sustainability (Feit, 1998; Freeman, 1989). In this sense, co-management represents a step towards cultural sustainability for First Nations because it re-instates elements of self-determination that have been stripped away.

Various terms, such as "co-management" and "co-operative management" are often applied interchangeably to a variety of arrangements that vary in both function and structure (Berkes, 1994). At a fundamental level, the involvement of the state, which has direct authority over natural resources, is an overriding requirement in order for any relationship to be considered within the general category of co-management. Many First Nations are today becoming involved in business arrangements with forestry companies, some of which even address forest management planning (NAFA/IOG, 2000). However, these should not be misconstrued as co-management arrangements, since they do not directly attend to the allocation of natural resources by the state. While many co-management agreements include business provisions (as is true of the MOU discussed here), these must occur within a context that addresses the upper levels of resource allocation and management.

Some co-operative arrangements were created as the result of comprehensive land claims agreements, such as the various management boards in the Gwich'in Settlement Area and Nunavut (Treseder and Honda-McNeil, 1999). Other arrangements have resulted from a response to a specific resource crisis, as with the Beverly-Qamanirjuaq (formerly "Kaminuriak") Caribou Management Board in the Northwest Territories (Usher, 1991, Osherenko, 1998). Quite often, co-management arrangements focus upon wildlife, which is of primary importance to aboriginal peoples. In rarer cases, other natural resources fall within the mandate of a co-management agreement, as is the case in the Caribou-Lower Peace SMA. Berkes (1994) attempts to provide some clarification and structure to the multitude of co-management arrangements by creating a seven-level ranked typology for them that is based on the level of authority transfer between the parties involved. "Co-management" would thus refer to a high degree of shared authority, something akin to co- jurisdiction, and "co-operative management" to a lesser degree of authority transfer. In truth, very few arrangements could be properly called "co-management" under this criterion, since final legislative authority is usually retained by the state (Notzke, 1995). I shall herein employ the term "co-operative management" since it most accurately reflects the situation of the LRRCN.

As discussed in section 1.2, the LRRCN is a signatory to a Memorandum of Understanding (MOU) shared by the Tallcree First Nation (TCFN), the Province of Alberta, Tolko Industries and Footner Forest Products, both of whom operate mills near High Level. A Co-operative Management Planning Board (herein "the Board") has been established under the MOU, and all signatories sit as voting members.[9] In addition, the First Nations each own a development corporation that holds the right to vote on the Board. While the parties are ideally supposed to pursue consensus-based decision-making, Board resolutions may pass through a majority vote, but only *if* the resolution has approval from the majority of First Nations voting members (Anon., 1999). Like most other co-management arrangements, the final authority in management decisions remains with the state, in this case the Alberta Minister of Sustainable Resource Development. Board resolutions are therefore advisory in nature only, but since the Board membership represents the major interests in the area, it is hoped that any resolution that successfully passes the Board will be accepted and enacted by the state.

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[9] The MOU makes provision to include representatives from the oil & gas and mining industries should their future activities in the SMA increase.

The general mandate of the Caribou-Lower Peace Board is to pursue Integrated Resource Management (IRM) within the SMA, which should address the impacts of various industrial activities upon First Nations' traditional activities. The MOU also includes a commitment to pursue research opportunities in this area through a partnership with the Sustainable Forest Management Network. The Board represents something of a milestone then, in that it is an attempt to address IRM from *within* a co-operative management structure itself (Ross and Smith, 2002). This arrangement differs from many other Canadian examples in that it is not part of a land claims agreement, nor is it a response to a specific resource depletion crisis. The Caribou Lower-Peace Board is instead an example of what Notzke (1995) terms "strategic co-management", in which a First Nation attempts to achieve its goals more indirectly by becoming involved in existing resource regimes. It therefore includes much more immediate interaction with industrial developers than do many other co-operative management agreements. In strategic co-management, First Nations operate within the boundaries of an existing framework in order to achieve their goals, and do not as actively challenge the entrenched state-management systems as other forms of co-management might. This is true for the case at hand, where the MOU does not challenge the industrial model of forestry, but rather seeks to amend it in specific ways (Treseder and Krogman, 2001).

There is little information available on the progress of the co-operative management Board to date. The MOU that was signed in 1999 expired in 2001, and is currently under a process of revision. The Alberta government's commitment to the process appears to have declined, while the forestry companies have agreed to maintain their working relationship with the First Nations should the government opt out (Jim Webb, Personal Communication, Dec. 2002). Several resolutions have been passed concerning the Board's research direction, but their long term outcome remains to be seen. Treseder and Krogman (2000, 2001) conducted a study of the Board members' attitudes during its incipient stage in 1999. While the Board had not yet undertaken sufficient activity for evaluation based on performance, their study is instructive in that it highlights several strengths and weaknesses in the foundation of the Board. Treseder and Krogman found a high degree of commitment to the cooperative process from all parties (2000: 7), but discovered several cultural and logistical barriers to Board operations. Some of the First Nation Board members interviewed in this study reported lacking the skills and experience necessary for meaningful participation in the Board's business. There are simply not enough qualified people within the LRRCN to meet the demand for all the skilled positions required by the band. Aboriginal members also feel that cultural differences in styles of communication (e.g. direct vs. indirect) hinder effective collaboration. This sense of alienation with the Board's procedures has unfortunately affected attendance of meetings by First Nation members, thus reducing their voting capacity (Treseder and Krogman, 2000: 8). In some ways, this demonstrates Stevenson's (1999) assertion that co-management institutions can be culturally alienating to aboriginal peoples, and that their structure may in fact contribute towards assimilationist tendencies in bureaucratic institutions. Nevertheless, LRRCN Board members expressed commitment to the process and a willingness to develop the necessary skills. As such, training for First Nations Board members is essential if required. Treseder and Krogman further suggest a mentoring program as a means to provide training for potential future Board members (2000: 8). Once trained, these members could be accompanied to meetings by a young community member, or any others who desire to gain training and experience. If the co-management process is to be understood as part of the government's fiduciary duty to consult First Nations, then funding requirements for such training may be a Crown responsibility. Some have suggested that where First Nations lack the technical expertise for meaningful consultation, it is the responsibility of the Crown to facilitate means to acquire this expertise (Sharvit et al. 1999: 18-19). However, this assertion has yet to be addressed at the appellate court level (*ibid.*).

Because the Board members lack a previous relationship with one another, Treseder and Krogman also identified trust-building as a priority (2000: 7). Despite a desire to collaborate, several Board members also identified trust as an issue, as all parties expect the others to maximize their gains while minimizing losses. No doubt the cultural alienation discussed above also contributes to this problem. Several Board members also identified the opportunity for "cultural exchange" in conjunction with the need for building trust (*ibid.*). Treseder and Krogman propose several approaches, including field trips with band members engaged in traditional activities, tours of forestry operations, and the employment of facilitators (2001: 13).

In general, it is fair to say that significant progress has been made in conflict avoidance between the LRRCN and the forestry industry through the co-operative management process. Commitment to this path will help to ease specific difficulties encountered along the way. Returning to the broader context of co-operative management, we can see that the strategic approach taken in this case presents both advantages and disadvantages for the LRRCN. By working within the bounds of industrial forestry, the Nation is able to directly interact with developers whose activities impact their traditional territories. This helps to avoid a certain amount of the bureaucratic red tape that would result from working only through a middleman (i.e. the government). Immediate impacts on the ecosystem may be mitigated in order to ensure sustained wildlife populations. However, the strategic approach excludes consideration of certain fundamental questions, particularly the Cree right to manage natural resources upon their lands as a part of self-determination. Resolution of these broader issues will likely present greater challenges than did the MOU, as they will challenge the very structure and philosophy of the state resource management regime.[10] Thus, the current arrangement could be seen as something of an "interim measure" for the LRRCN, pending the resolution of larger issues that address the root of First Nations' sovereignty (Sewepegaham, 1998).

2.3 Forestry Certification and Aboriginal Rights

Although forestry certification is a relatively recent phenomenon, it is playing an ever-increasing role in influencing forest practices. In contrast to regulatory regimes, certification is a market-driven approach to ensuring sustainability and best practices in forestry operations. These practices generally go above and beyond the common concept of sustainability (i.e. sustained timber yields) to include sustainability of social values in forest management. Certification thus provides an opportunity for aboriginal peoples to address issues of cultural sustainability together with forestry companies. In this scenario, timber producers pursue certification in an effort to secure and expand their access to markets in which consumers and retailers may prefer to purchase certified timber. On the face of it, a market driven approach to promoting cultural values may be more effective than a regulatory one, as the market has the potential to impose standards that exceed government-imposed legal terms. The onus for proving the legal legitimacy of their rights may thus be lifted from First Nations, and the onus for respecting these rights placed upon the industry. Further, market incentives often provoke a more eager and proactive approach from industry than do regulations, which require only non-violation in order to avoid penalty.

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[10] For example, there is impending dispute over hunting regulations for residents of Garden River, which lies within Wood Buffalo National Park. Members of the LRRCN and several other First Nations have been hunting in the area well prior to the creation of the park. Though co-operative efforts have been initiated, no resolution has yet been reached; see Notzke (1994: 245-248) and Pyc (1998).

The impact of certification schemes is dependent both upon their public acceptance and upon their design. At present, certification programs are designed by a wide range of bodies, including environmental NGO's, independent standards organizations, industry associations and governments. Because of this wide range of interests and agendas, there is currently little standardization among certification criteria or processes. Several different certification schemes are currently pursued by Canadian forestry companies, which vary widely in the degree to which they address aboriginal issues in forest management.

In 1995, The Canadian Council of Forest Ministers (CCFM) developed criteria and indicators for sustainable forest management, which were subsequently adopted by the Canadian Standards Association (CSA) for their certification program. These standards include criteria 6, "Accepting society's responsibility for sustainable development", within which are subsumed several sub-criteria, including 6.1., "Aboriginal and Treaty rights" and 6.2 "Participation by aboriginal communities in sustainable forest management" (CCFM, 1995). The National Aboriginal Forestry Association (NAFA) has argued for an independent aboriginal criterion to be included in these standards in order to recognize the unique status of aboriginal people, but has yet to be successful (Bombay et. al. 1995). The CSA standards do include recognition of treaty and aboriginal rights, yet progress in this area remains minimal, with industry and government efforts more focussed upon involving aboriginal peoples in the market aspects of forestry operations (Ross and Smith, 2002).

The ISO (International Standards Association) 14001 certification system is currently the most popular one among Canadian forestry companies (Wilson et al., 2001). Similar to the CSA, the ISO is a non-governmental standards body that designs and implements standards for various industrial practices, including forestry. The system is one of the oldest available certification programs, and one of the easiest to implement.[11] Unfortunately, the ISO 14001 criteria do not address aboriginal issues in any meaningful way. Within Alberta, the *ForestCare* program designed by the Alberta Forest Products Association (AFPA) is growing in popularity; over 80% of Alberta companies who responded to a recent survey reported being involved in or considering *ForestCare* certification (Wilson et al, 2001). Like the ISO, however, *ForestCare* fails to address aboriginal issues. Their stated criteria for sustainable forest management contain no references to aboriginal peoples, either in the main headings or in the sub-criteria (see www.forestcare.net). The AFPA participated by invitation in government hearings to design a draft policy on relations with aboriginal peoples, but this appears to be the extent of their commitment.

The Forest Stewardship Council (FSC) has given by far the greatest attention to aboriginal issues of any certification scheme. In contrast to other certifying bodies, who are generally associated with the promotion of industry, the FSC is an international organization comprised primarily of environmental and social advocates (Bass, 1998). FSC certification is performance-based rather than systems based (see footnote 11 above) and, unlike other programs, allows an eco-label to be placed on saleable lumber. The FSC has designed a certification system based on ten overarching principles. Principle 3 and its criteria are devoted specifically to aboriginal peoples:

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[11] The ISO 14001 standard is a *systems-based* rather than *production-based* model, in that it evaluates a forest management plan rather than requiring companies to meet specific production outputs (Bass, 1998). Haener and Luckert (1998) frame this contrast in terms of the inputs and outputs of forest management; systems-based certification is only concerned with inputs to the plan, rather than its outputs.

> *The Legal and customary rights of Indigenous peoples to own, use and manage their lands and territories and resources shall be recognized and respected.*
> 3.1 Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.
> 3.2 Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of Indigenous peoples.
> 3.3 Sites of special cultural, ecological, economic or religious significance to Indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.
> 3.4 Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence. (Source: www.fsccanada.org/policies/index.shtml)

FSC criteria are quite stringent compared to those of other certification schemes, particularly concerning aboriginal issues. FSC criteria are purposefully broad, and are intended to encompass any national or regional policies that may already exist (e.g. treaty rights). However, this means that they will require greater specification in order to be properly implemented in different regions. For example, the term "lands and territories" used in criteria 3.1 is ambiguous, and within Canada could refer to reserves, traditional territories, or currently used territories (Stevenson, 2000: 4). Sites of cultural, ecological, or economic significance to First Nations, as stated in criteria 3.3, could be taken to include their entire traditional use area, which provides habitat for the animals and plants they harvest. "Customary rights" will need to be defined and investigated at the local level in order to ascertain what these rights are and how they may be accommodated.

Further, it may be difficult for certification applicants to comply with the legal rights of aboriginal peoples, because it is in many cases still unclear what those rights are. Even though the existence of treaty and aboriginal rights is affirmed in the Canadian constitution, the exact scope and nature of these rights is still being defined by the courts. For example, consultation with First Nations on any activity that may affect members is now an established requirement, but what constitutes good consultation remains the subject of much speculation (Sharvit et al. 1999, Davis and Company Barristers, 1998). The LRRCN is currently helping to clarify Principle 3 through a consultation process aimed at developing various regional standards in Canada. The Nation contends that in the case of ambiguities, forestry companies should err on the side of First Nations rather than relying on the Crown to define First Nation rights for them (LRRCN, No Date). Certification applicants should familiarize themselves with the claims of First Nations and with the legal reasoning behind these claims, and consider them in their forest management practices (*ibid.*). This approach would be consistent with principles of treaty interpretation discussed in section 2.1 above, which call for large and liberal interpretation in favour of aboriginal peoples. It is also consistent with the idea of certification as a privilege that reflects best practices, and thus many require applicants to go above and beyond legal requirements. [12]

In cases where co-operative management agreements exist, forestry companies may have already taken a large step towards fulfilling FSC certification criteria. Stevenson (2000: 32) notes that co-operative management provides a good vehicle for achieving the level of disclosure required for “free and informed consent” under Criteria 3.1. In the case at hand, the LRRCN possesses almost half of the timber rights within the SMA, thus controlling much of the resource development on their traditional territory. The MOU shared by the Nation and local forestry companies might very well constitute “free and informed” consent”. The agreement also provides a framework for valuing traditional uses, cultural values, and aboriginal knowledge. It would seem like a small step to ensure that other certification criteria are met. Nevertheless, neither Tolko Industries nor Footner Forest Products are currently seeking FSC certification for their High Level operations, opting instead for the ISO and *ForestCare* systems (see their respective websites at www.tolko.com and www.ainsworth.ca).

At this point, it remains unclear how much the forestry industry will embrace certification. A recent survey of 142 Canadian timber companies shows that ISO 14001 is by far the most popular certification system, with 55% of respondents either having or considering ISO certification (Wilson et al., 2001). Only 38% of respondents are involved in CSA certification (either by being certified or preparing for an audit), 24% with FSC, while 36% reported no interest in certification at all.[13] Most reported that they find FSC standards too stringent for them to consider pursuing certification. Because certification is market-based rather than regulatory, the incentives must outweigh the disincentives in order for it to be embraced. Disincentives include high costs, reduced harvests, and loss of management control. Incentives are currently limited to increased market share, as most companies do not perceive that certification will allow them to charge a price premium for their lumber (*ibid.*). The success of certification is therefore based upon public demand. At present, there does not appear to be enough demand for certified wood to force producers to obtain eco-labelling for their products through programs such as FSC. Those who wish to promote certification should therefore focus their efforts on raising public awareness. Convincing value-added retailers to demand products made with production-certified wood would further increase the pressure on timber harvesters to obtain certification. In this case, the concerns of the aboriginal and environmental communities and may coincide. Increasing the public sensitivity to the social value of forests can be an indirect way to promote cultural sustainability in conjunction with ecological sustainability. In the case of First Nations communities, the two are inextricably linked.

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[12] Some ambiguities may, however, be legally untenable if taken to favour First Nations. For example, if “lands and territories” includes traditional use territories on present day Crown lands, then First Nations do not have the sole right to delegate development opportunities on these lands, as required by FSC Criteria 3.1. Rather, they must be consulted regarding activities that may affect their use rights on these lands.

2.4 Aboriginal Participation in the Forestry Industry

Many First Nations are choosing a more indirect means of mitigating the impacts of industrial forestry upon their lives: direct involvement in the industry. This participation may take several forms, ranging from forest services contracting to co-operative agreements to joint ventures (NAFA/IOG, 2000). In terms of cultural sustainability, two main benefits of the participation approach are apparent; first, it may allow for a certain amount of control over timber harvesting on traditional territories. Second, forestry activity and employment can be an important source of revenue for aboriginal communities, which typically lack many economic opportunities. In the modern context of subsistence harvesting, access to cash has become vital for purchasing the equipment required to be on land. Those who are able to find jobs are also more likely to be active harvesters. (This point is addressed at length in sections 3.2 and 3.4).

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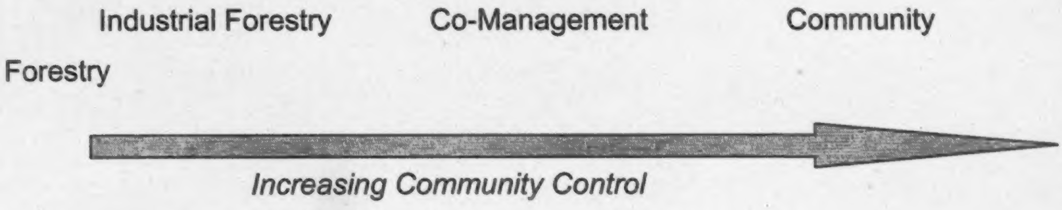
[13] Many companies employ more than one certification system, and thus the total figures exceed 100%.

First Nations in Canada are currently involved in forestry activity through several different frameworks. Beckley (1998b) has established a typology for classifying these activities: industrial forestry, co-management of forests, and community forestry (Figure 3). The former two types are the most common, while only a handful of examples of First Nations community forestry exist (Treseder and Krogman, 1999). In reality, these three forestry typologies more accurately reflect points on a continuum than they do discrete approaches (Figure 2). Operations classed as one type of forestry may incorporate significant elements of the others. The LRRCN has been involved in some form of industrial forestry for several decades. A small mill was established in Garden River during the 1970's, and was operated successfully for several years until it was consolidated with another mill in High Level (NAFA/IOG, 2000). Information on harvesting levels and timber quotas for the mill are not available, but several community members with whom I have worked reported having been employed by the locally-owned JBS Logging, which supplied the mill. No doubt the operation had a significant impact on the local economy and established a precedent for industrial logging within the Nation.

Figure 2: Continuum of aboriginal participation in forestry.



Adapted from Beckley (1998b)

With the new co-operative management framework, the LRRCN is moving away from a strictly industrial approach towards the other side of the spectrum illustrated in Figure 2. This new approach brings with it an unprecedented level of locally driven forestry activity while also incorporating greater community control over these activities. The LRRCN unfortunately does not have the luxury of limiting its forestry activity to its reserves, which are too small to sustain any level of commercial harvesting, as is the case with nearly all Canadian reserves (Notzke, 1994). If the Nation is to engage in timber harvesting, it must do so on its traditional lands. The MOU provides for timber allocations to be awarded to LRRCN and TCFN within several Forest Management Units (FMU's) within the SMA. The two nations now collectively hold rights to over 400,000 cubic metres of timber (the majority belonging to the LRRCN), which represents over 40% of the AAC for the entire SMA. In addition to allocating harvest tenures, the MOU commits the parties to capacity building in forestry skills for First Nations members so as to ensure economic benefits for Nation members. Accordingly, several research projects conducted by the SFM Network have addressed the need to establish local training programs.

At first glance then, the MOU appears to incorporate elements of community forestry by directly involving the Nation in forestry operations. Krogman and Beckley (2002), however, caution that we should not confuse "community forestry" with "community forests". They define the former as "a state or condition that is achieved when a given forest is managed in partnership with a community, with an eye toward increasing community benefits from those management activities" (Krogman and Beckley, 2002:112). In contrast, "[a] community forest is an entity that has an explicit mandate and legal decision-making authority to manage a given land base for the benefit of a local community" (*ibid.*). While the MOU provides the LRRCN with significant opportunity for financial benefits and management input, it does not grant control over timber quotas. The Nation was only able to acquire these quotas on the condition that they enter into long-term supply agreements with the Tolko and Footner mills in High Level (Sewepegaham, 1998). This is consistent with the Alberta regulations governing long-term forest tenures, wherein it is actually illegal to cut less than 90% of the AAC for a designated area, thus ensuring mills of continuous fibre supplies (Ross and Smith, 2002). The co-operative management process must therefore mitigate the impacts on the

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landscape within bounds of the existing AAC.[14] Some argue that protection of traditional land uses requires that First Nations have access to forest tenure systems that allow them to determine harvesting levels on their own (Ross and Smith, 2002; Curran and M'Gonigle, 1999). This would seem to necessitate the establishment of something more closely resembling a community forest.

Unfortunately, progress in establishing community forests has been sporadic, at least in North America.[15] Despite growing interest in this concept, only British Columbia has any formal process whereby communities may apply for a forest tenure (Ross and Smith, 2002: 40). Further, many of the cases typically cited as examples of community forests (e.g. the Revelstoke and Mission Municipal Forests) in fact lack the control required for such designation (Booth, 1998). The Tl'azt'en Nation of northern B.C. has secured a Tree Farm License (TFL) and a locally operated sawmill. However, like the LRRCN, the Tl'azt'en must harvest a specified amount of timber from their tenure area, which is determined without their input (*ibid.*). Where local control does exist, it is often the result of specific and atypical circumstances rather than government policy. This is true of the North Cowichan Municipal Forest in B.C., which was private land that was re-acquired by the community following a taxation dispute (Fletcher and M'Gonigle, 1991).

Prior to the negotiation of the current MOU, the LRRCN and various partners applied to the Model Forest Network to establish a program in the area. This would have established a program to govern the surrounding forest based upon multiple use values for the communities, with a locally determined harvest rate for timber. The bid, however, was unsuccessful, and it was instead awarded to the northern Quebec Cree community of Waswanipi. [16] In the absence of a Model Forest or a means to obtain a community forest, the LRRCN endorses the TRIAD model of forest management as a means to incorporate multiple use values into industrial forestry (LRRCN 2000b). Within this model, forest lands are divided up into three categories: those to be intensively managed for timber yields, those to be intensely conserved for non-timber values, and those which combine some level of conservation and harvesting. The LRRCN has suggested that some of the farmland that lies to the west of the SMA might be acquired for the purpose of establishing tree plantations (LRRCN 2000b: 15). This would allow for much of the SMA to be conserved for subsistence harvesting practices while still allowing the mills to meet their quotas. The plantation approach is of course a very long-term solution that will not address immediate timber needs and logging impacts even if successful.

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[14] Several First Nations Board members suggested to that it would be necessary to reduce the AAC for the regions in order to sustain multiple land uses, including traditional use (Treseder and Krogman 2000: 7; 2001: 11).

[15] FSC has certified various community forests in Africa, Mexico, and South America, but only two in the U.S. and one in Canada (Irvine, 2000). Of these, only one operation exceeds 100,000 hectares.

[16] See the Model Forest Network website at http://www.modelforest.net for more specific information about the program, including the Waswanipi forest.

The current situation requires that timber harvesting take place under the terms of the MOU. Although this situation is infinitely preferable to harvesting with no partnership between First Nations and industry, the LRRCN are pursuing this path as an interim measure, pending the resolution of broader issues. The Nation is currently awaiting the outcome of their Treaty Land Entitlement (TLE) claim, which may provide a significant enough land base to establish a community-controlled forest on reserve lands, or possibly to establish a plantation within the TRIAD model (LRRCN 2000b: 15). Further, the Nation contests the Crown's position that the signatories of Treaty 8 ceded with free and informed consent the right to manage their lands (Sewepegaham, 1998: 68). This is a challenge to the entire resource allocation process in Alberta, which is far beyond the scope of the MOU Board and would likely require risky and expensive litigation to assert. For now, it seems that the LRRCN is content to pursue a cooperative relationship in industrial forestry, "so long as both industry and government live up to their commitments to [First] Nations" (*ibid.*).

2.5 Summary

Aboriginal peoples in northern Alberta have felt the impacts of industrial forestry upon their traditional livelihoods for several decades now. Yet, it is only recently that these two groups have begun to develop any kind of formal relationship. Their current relationship might best be understood as being in flux, and as oscillating somewhere between private sector interactions and the potential for public litigation. While the law offers First Nations a degree of security, private relations with the forestry sector offer the opportunity to avoid the uncertainty and costs of legal confrontation. Still, any partnerships that are built in the private sector must first be grounded in the Canadian legal context concerning treaty and aboriginal rights if they are to have the confidence and commitment of First Nations. This is a daunting task, since the legal context is itself in a constant state of definition and clarification. In particular, the scope of the Crown's fiduciary duty to First Nations (and potentially that of industry) and the requirements for effective consultation will require further clarification. The LRRCN's relationships to the forestry industry have been successful largely because it seeks benefits within existing structures rather than challenging them. The Nation, however, still believes that the current system of resource allocation in Alberta violates their sovereignty, and may one day choose to challenge that system.

Product certification offers a promising opportunity to overcome regulatory uncertainties by relying upon the market to dictate the terms of industry/ First Nations relationships. Of course, the market is a volatile and uncertain thing, which offers little long-term security. If consumer demand for certified wood is insufficient, so too will be pressure upon forestry companies for best practices towards aboriginal peoples. Because of this uncertainty, it is important that certification not be relied upon to wholly replace a solid regulatory regime (Muldoon and Nadarajah, 1999). It remains unclear how great a role certification will play in the forestry industry, but many predict that its future will likely be decided within the next five to seven years (Lopez, 2002).

Aboriginal cultural sustainability currently has several, often conflicting requirements where industrial forestry is concerned. First, it requires that the logging and processing of timber does not damage ecosystems so as to limit the availability of wildlife. This would seem to require the curtailment of forestry activities. However, modern subsistence harvesting (and modern life in general) also requires access to cash, both to buy equipment with and to secure time to devote to harvesting. Forestry revenue is one of the few available sources of income for First Nations in the boreal forest, which would seem to place them in the conflicting position of wishing both to promote and limit commercial timber harvesting. Unfortunately, there is currently no means for aboriginal communities to become involved in industrial forestry while retaining local control. They must instead abide by government regulations regarding timber tenures and cut rates. This conflict between the need for environmental protection and the need for revenue transcends both the legal and market contexts, and illustrates the greatest problem facing First Nations as they move further towards autonomy. This conflict will require individual First Nations to make difficult decisions in their attempts to achieve the balance that is required for healthy communities. The LRRCN at this point is choosing to cautiously pursue industrial forestry opportunities, so long as the other players involved recognize their cultural needs as well as economic ones.

3. Cultural Sustainability within the Little Red River Cree Nation

If the security of habitat for the wildlife, plants, and NTFR's harvested by the members of the LRRCN can be ensured, then the ability to access these resources must also be preserved in order to ensure cultural sustainability. Despite an earnest desire by most Crees to continue subsistence harvesting and spending time in the bush, there is cause for concern regarding their ability to do so. The transition from a nomadic to a sedentary lifestyle on reserves has created a new socio-economic setting, which includes new modes of production, new logistical issues with subsistence harvesting, and new cultural norms and expectations in these matters. Subsistence harvesting remains as a significant activity for many people, one which continues to make a large economic contribution to the communities. However, it is no longer the primary livelihood of most Nation members, even for many who would wish it. Trade goods and cash have been a reality of life among the Little Red River Cree for over two centuries now. As living costs increase and as more potential consumer products and services are encountered, the demand for cash increases as well. A combination of declining international markets for fur (see Wenzel, 1991) and a growing local population have made it impossible for any great number of Nation members to obtain needed cash and trade goods through trapping. This has in turn required increased attention to wage employment, and in more recent years, the schooling and training necessary to qualify for good jobs. Sedentary life on reserves also creates a wealth of logistical difficulties that impede harvesting. Time is limited, preparation and travel requirements increase, thereby raising costs; knowledge about the bush may decrease while the social mechanisms for maintaining that knowledge also wane; these barriers are addressed at length in sections 3.4 and 3.5. Hunting and gathering remain highly valued as cultural activities, yet the new realities of life make it difficult to sustain the level of harvesting activity of previous generations. Despite the difficulties, Crees continue to struggle to overcome the barriers they face in maintaining these culturally vital traditions. This chapter explores some of these barriers and their potential solutions.

3.1 Harvest Survey Design and Focus

During the summer of 2001, the LRRCN initiated a household harvest survey in partnership with the Sustainable Forest Management (SFM) Network. This survey was intended to provide baseline harvesting statistics on the amounts of bush resources currently used by Nation members in order to inform future land-use planning in the area, particularly in the context of the Caribou-Lower Peace Co-operative Management Board. The survey also provides a quantitative argument against any claims that subsistence harvesting is a dying or insignificant vocation among the Little Red River Cree. While refuting such claims, the survey at the same time acknowledges and explores the barriers to harvesting discussed above by asking several qualitative questions on this issue. This forms the basis for the holistic approach of this thesis, which attempts to account for both the resilience and shortcomings of the current subsistence harvesting regime in the LRRCN. Like other harvest surveys (such as those commonly conducted by the Alaska Division of Subsistence; see Fall, 1990), this one provides baseline data to inform resource management, while also exploring the social and ecological relationships of aboriginal peoples to their resource base (Usher and Wenzel,1987:149).

The LRRCN harvest survey was conducted by six local summer students (two in each of the three communities) with the guidance of a post-doctoral student and myself. Local researchers were employed for two reasons. First, respondents would be more likely to participate in the study and accurately respond to questions if conducted by a local Cree person rather than a white researcher from the south. Second, the mandate of the SFM Network is to have First Nations participate as active partners in research rather than as "subjects". Aboriginal participation also promotes capacity growth in their communities by allowing access to training and experience that might not otherwise be available.

The students administered the survey to a senior member of each household in the Nation. Households were chosen as the unit of analysis because neither sufficient time nor resources were available to interview every potential adult harvester. Surveying households as a whole was the only likely means to achieve sufficient enough coverage to constitute a representative sample. Respondents were asked to report the total bush harvest for all members of their household for the year 2000. Animal and plant resources were broken down by category (ungulates, furbearers, waterfowl, upland birds, fish, timber and NTFR) and further broken down into species (e.g. moose, beaver, pickerel, etc.). The comprehensiveness of the species list provided was first checked with a local Cree research consultant before proceeding. The temporal range of the survey was broken down into months, asking respondents to report the total number of each resource type harvested in each month during 2000. They were then asked several questions regarding their current harvesting practices: 1) Would you spend more time in the bush if you could? 2) Did you give and/or receive bush resources during 2000? With whom did sharing occur? 3) What barriers, if any, prevent you from harvesting as much as you would like? 4) Did the generation before you have greater or lesser access to bush resources than you? Will the next generation have greater or lesser access than you do?

Surveys of this kind have several limitations that should be addressed prior to drawing conclusions from their findings. First, we were not able to achieve a complete census in the allotted time. The research assistants completed a total of 195 surveys, which equals approximately 50% coverage.[17] This sample is, however, statistically significant enough to generalize to the LRRCN population as a whole. The sample was not random, though the research assistants made an effort to visit both low-harvest and high-harvest households. Those who were most likely to decline or avoid participation were those with little harvesting to report. However, several of the more intensive harvesters were not surveyed because they were in the bush rather than the community for most of the summer. This would tend to balance out the lack of participation by low harvesters, thereby avoiding an exaggerated average harvest rate in the survey results.

Several types of respondent biases may also affect the results of harvest surveys (Usher and Wenzel, 1987: 154-155). In regard to the qualitative questions about resource distribution and harvesting barriers, the household survey units may have created non-response biases. These are specifically addressed in the sections below that deal with those subjects. Regarding the quantitative portion of the survey, I have already addressed non-response bias above, and found that it is not likely to significantly impact the research findings. Response bias may take two forms; strategic bias or recall error. There are several reasons to discount strategic bias in this case. As with most aboriginal peoples, hunting and gathering are part of a sacred relationship with animals, and lying about this, whether to brag or to achieve secrecy, is quite frowned upon (Brody, 1982). Indeed, arrogance in any form is taboo in Cree society, but especially in relation to hunting, so reporting exaggerated harvest yields is counter-intuitive. There is evidence that Nation members in fact reported harvest numbers that were to their strategic disadvantage. For example, several household in Garden River reported harvesting several moose, despite a WBNP regulation that allows only one moose per licence holder per year. In all likelihood, their harvests exceeded this quota, yet they chose to report this anyway.

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[17] Almost total coverage was achieved in Garden River, the smallest community. About half the households in Fox Lake were covered, and slightly less than half in John D'or Prairie.

Recall bias is of course a factor in any harvest survey, but can be minimized through the use of recall aids, such as extensive species lists and small temporal units, both of which were employed in this survey. In this particular case, some might question the awareness of a senior household member about all the harvests of other family members, or their ability to recall them all. In my experience, however, any harvest would become known to a hunter's immediate family members, if not extended ones, both through word of mouth as well as the sharing process that inevitably occurs following even the smallest harvest (see section 3.2.3). It is unlikely that harvests as significant or rare as a moose, bear, or lynx would go unnoticed or un-discussed. Recall ability would likely decrease where harvested numbers are too large to track accurately (e.g. waterfowl, fish, rabbits, berries). Furbearers would be an exception here, because trappers must keep accurate track of large numbers of animals in order to monitor their income (Usher and Wenzel, 1987: 156). The survey should thus be considered most accurate for ungulates, furbearers, and upland birds, and somewhat less accurate for fish, waterfowl, timber and NTFR.

The harvest survey was supplemented by semi-structured interviews carried out by the author. In total, 17 interviews were conducted over the 2001 and 2002 field seasons, which provided an opportunity to explore social relations of subsistence harvesting in greater depth. I particularly addressed the social value and ideology of subsistence activities, barriers to this lifestyle, its current status among Cree youth, and distribution of country foods. Land use and allocation patterns were also discussed and documented. During the 2002 season, I attempted to visit as many bush camps as possible and participate in harvesting activities in order better understand and document the social relations involved. I returned to the Nation for two weeks in late September in order to participate in the fall moose hunt.

Following the 2001 harvest survey, the LRRCN initiated a land-use mapping project in 2002 in order to provide geographical data concerning subsistence harvesting. The project design is based upon the "map biography" approach developed by Freeman (1976), in which harvesters are asked to record the areas they have used for harvesting various species throughout their lifetime. The mapping survey is as yet incomplete, and data obtained thus far have yet to be digitized or analysed. However, broad patterns concerning land access and use are immediately apparent from the maps obtained. I shall make reference to these patterns as they apply to the discussion of cultural sustainability.

3.2 The Current Harvesting Regime in the Little Red River Cree Nation

Before formulating a plan for cultural sustainability, it is essential to understand just what it is we are trying to sustain. It is therefore necessary to understand the structure and practice of the subsistence harvesting regime within the LRRCN before discussing the challenges faced. To this end, I shall spend some time on ethnographic description based upon a combination of my own experiences and the harvest survey results.

3.2.1 Species Importance and Hunting Strategies

The harvest survey provides us with data on the relative levels of bush resource use among Nation members. Table 1 shows the total reported harvest; fish, upland birds, and furbearers are presented by category rather than by species for readability.

Table 1: Total Bush Resources Harvested, LRRCN 2000

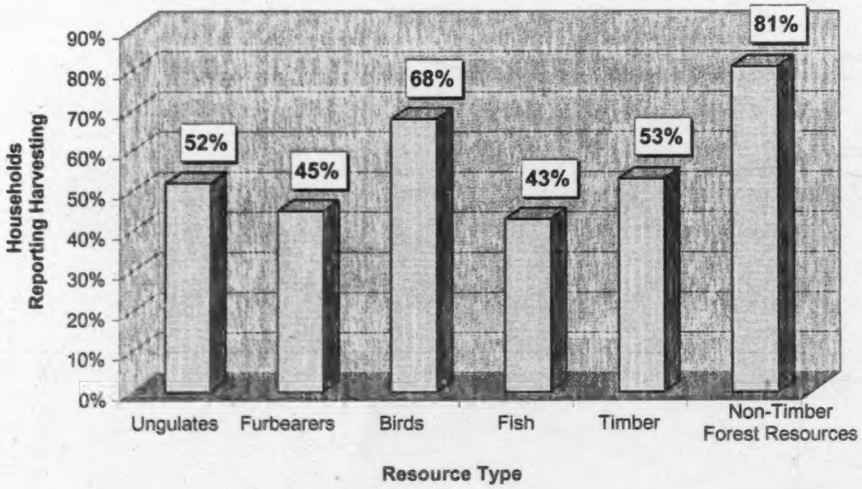
Moose	*Bear*	*Deer*	*Furbearers**	*Ducks*	*Geese*	*Upland Birds*	*Fish*	*Berries (kg)*
226	*63*	*52*	*1481*	*3258*	*447*	*612*	*2076*	*1215*

*Does not include rabbits, which numbered over 2000 by themselves.

While bison and caribou were included on the survey, none were reported taken during 2000. Caribou are seldom hunted, as they are found only on the plateau and the north slope of the Caribou Mountains, making them difficult to access. The proximity of moose to the communities, along with the preference for their meat, further discourages hunting caribou. Wood Bison were formerly an important food species for the Little Red River Cree, but their dwindling numbers brought on by disease have led to a general proscription on their harvest. This may change in the future, as attempts are made to rehabilitate the population (see section 3.5).

Figure 3 below demonstrates that resource use is not restricted to a limited number of highly active households. Instead, we see that many households continue to rely upon bush resources. Note that the use of furbearers by 45% of households does not equate to full-time or even part-time trapping by all those respondents, which would seem abnormally high. Anybody who reported harvesting even a limited number of furbearers is included in this category. NTFRs were the most widely used resource, with berries being the most common of these..

Figure 3: Types of Bush Resources Harvested (by Household)



Aboriginal peoples' hunting efforts have always been most focussed during times when animal behaviour and location becomes the most predictable, either during a mating season or where weather conditions are favourable (Feit, 1987). While hunting of course occurs at other times as well, it tends to be more sporadic and opportunistic in nature. At such times, people often pursue opportunities that they encounter by chance, rather than actively seeking them out. This divide between intensive and sporadic hunting remains in place among the Little Red River Cree today. In fact, sedentary reserve life has probably increased the gulf between the two. When Crees lived in the bush full-time, they would encounter many more opportunities to pursue game by chance. Trappers, for example, often encountered moose while checking their lines, and would attempt to kill them if circumstances were appropriate (Pyc, 1998: 45). Crees of this time period would also be more inclined to pursue chance opportunities at length, since their survival depended upon bush foods. Stories of these old hunters tracking a moose for several days are quite common. It is unlikely that anyone would invest such effort today, or even that they would have the skill to do so. Within Crees' (and most others') norms of hunting effort, it makes little sense to go to such effort and expense when other sources of food are more readily accessible. Today, sporadic hunting may be conducted from vehicles where there is road access or cut-lines, a practice that has been described to me and others as "crow hunting", in that it is considered scavenging rather than skilled practice (Pyc, 1998: 71).

In contrast, hunting during intensive periods often sees people moving out to seasonal camps for extended periods of time, often with their whole families. At these times, community life is put on hold as people focus their attention on hunting and living in the bush. The fall moose hunt is by far the most important time of year for LRRCN hunters. At this time (late September to late October), moose are in the rut and are responsive to imitation mating calls by hunters. Hunters will choose an open area that provides good lines of sight in several directions, and call intermittently for several hours. Dawn and dusk are the preferred times for calling, as moose are most active at these times.

Other species are also hunted during predictable periods, but are of less importance than moose. Bears are commonly found near rivers in the late summer and early fall as they seek out food to prepare for winter. They become fat at this time and are therefore more desirable to hunters. Owing to relatively lower populations and lack of response to verbal calls, they are less actively pursued than moose. Ducks are often hunted during this period as well, when they are unable to fly prior to moulting. Since they are predictably found in marshlands, many of which are quite close to the communities, hunting them does not necessarily require a move to a seasonal camp. Often they are harvested during the moose hunt if conditions are favourable. Intensive trapping is becoming increasingly less common within the Nation (Pyc 1998: 74). Some people make short trips to traplines and cabins in order to trap part-time, but virtually nobody moves their families to the bush for extended periods for this purpose anymore. Low fur prices make trapping an inefficient and unviable vocation today, and it is largely pursued in order to maintain ties to the past and simply to spend time in the bush.

3.2.2 Inter-generational Hunting Patterns

There is an emerging gap in the strategies and skills of younger and older hunters in the LRRCN. The young people that do spend time in the bush are able to devote far less time to harvesting activities than do older generations, owing to the demands of schooling and wage employment. As such, their harvesting strategies are usually further towards the sporadic end of the spectrum than those of their elders. Quite often, young people will only hunt intensively during the fall moose hunt, at which time they accompany their families to bush camps. This lack of time to devote to harvesting generally results in reduced skill levels, which means that young hunters are also far more likely than their elders to employ "crow hunting" strategies (i.e. opportunistic hunting that is conducted from vehicles or boats) if hunting outside the fall rut. In a survey of Garden River hunters, Pyc (1998: 71) found that only those over the age of 40 were knowledgeable in tracking moose through the bush. These older hunters also had a higher success rates than their younger counterparts (Pyc, 1998: 53).

Elders frequently comment on the lack of skills among the young hunters today. As one of them stated to Pyc, "Very seldom do people hunt by stalking animals. In the past, that was mainly the way we hunted…I think that the younger hunters are missing out on the value of the hunt" (1998: 72). My own interviews elicited similar responses. One elder remarked to me that most young people would get lost if they tried to walk in the bush today. His grandson later confirmed this belief, telling me that he had made himself laugh earlier that day by mistakenly walking in a circle while setting rabbit snares not far from town. Ethnographic studies among other aboriginal peoples demonstrate that this inter-generational gap in hunting knowledge and skill is not isolated to the LRRCN (e.g. Condon et al., 1995). The implications of this knowledge gap for cultural sustainability will be further discussed in section 3.5.

3.2.3 Consumption and Distribution of Bush Foods

Social scientists have often explored the importance of "country foods", or "bush foods", (i.e. those obtained through subsistence harvesting) in modern aboriginal societies, both in economic and cultural terms (Wein et al., 1991; Mackey and Orr, 1987; Scott, 1984). Their intention is generally to illustrate that while reduced in abundance, these foods are not marginalized or subordinated to store-bought foods in any sense. In fact, the growing scarcity of country foods has more likely increased their value in the minds of aboriginal peoples. The majority of the Cree diet is today derived from store-bought foods for several reasons. There is simply not enough country foods coming into the community to provide a significant portion for everybody, and it is debatable whether or not the carrying capacity of the LRRCN's traditional use area could sustain the current population. This shortage tends to create an inter-generational gap in food consumption patterns. Young people are usually the first to exploit store-bought foods, as they have been raised in communities and are more accustomed to these foods (Condon et al., 1995; Wein et al., 1991). In Garden River, for example, only people over the age of 60 generally consume more moose meat than store-bought meat (Pyc, 1998: 85).

Despite this scarcity, country foods continue to play a substantial role in the LRRCN economy. The calculation of replacement costs for bush harvests is a common method of quantifying their economic value (e.g. Tobias and Kay, 1993; Scott, 1984). Table 2 shows the replacement costs for the portion of the LRRCN bush harvest of 2000 that was recorded by our survey.[18] Calculations are shown for two grocery stores, one within the Nation (Northern Store in Fox Lake) and one outside (Super A in High Level, approximately 200 km away). This comparison is provided mainly to illustrate the relatively high grocery costs within the Nation. In reality, most people do not have reliable access to High Level, and the gas costs involved would nullify any savings.

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[18] Average uncooked edible weights for harvested animals are taken from Tobias and Kay (1993), who employed a combination of figures derived from local research in Pinehouse, Saskatchewan, figures from Banfield (1974) and figures used in the negotiation of the James Bay Northern Quebec Agreement (JBNQA).

The figures shown apply only to the recorded harvest on the survey (sample size approx. 50%). If we extrapolate to the population as a whole, we find that bush resources provided over $2 million worth of food to the LRRCN in 2000. This is of course a rough figure, and is intended only to provide perspective. There are multiple difficulties involved in calculating replacement costs for bush foods, including lack of comparable replacements (e.g. no fresh fish fillets at either grocery store, or the selection of replacement foods that are considered nutritionally inferior by Crees).[19] Nevertheless, the figures provide a useful ballpark figure by which to gauge the economic contribution of country foods.

Table 2. Replacement Costs for LRRCN Bush Harvest, 2000 [20]

Bush Resource	Total Edible Weight	Grocery Replacement	Replacement Costs	
			High Level	*Fox Lake*
Ungulates	59, 679 kg	Beef (Sirloin steaks)	**$656, 500**	**$954, 300**
Furbearers	5880 kg	Beef (Sirloin steaks)	**$64,700**	**$94, 000**
Birds	2684kg	Chicken (Thighs)	**$11, 800**	**$19, 600**
Fish	2182 kg	Fish (Fresh Fillets)	**N/A**	**N/A**
Eggs	5406 (450.5 dozen)	Eggs (Dozens)	**$700.00**	**$1300**
Berries	1215 kg	Blueberries (Fresh)	**$13, 400.00**	**$25, 7000**
Total Replacement Costs			***$747,100***	***$1,094,900***

These foods can be especially important to impoverished households, many of which exist in the LRRCN. Even those who receive government assistance may have difficulty meeting their nutritional requirements through store-bought foods. A study conducted by the Alberta Treaty 8 Health Authority (2001) found that 99.9 % of a

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[19] We were unable to quantify the use of medicinal plants on the harvest survey because of the sensitive nature of this subject. Had we been able to do so, and to align them with comparable commercial medicines, the replacement value of the bush harvest would have increased substantially.

[20] All replacement costs have been rounded to the nearest hundreds of dollars.

Fox Lake family's social assistance payments would be required in order to provide a healthy family diet based on local grocery prices. Several interviewees told me that many poorer families rely upon bush foods to put meat on the table, and many people are concerned about potential malnourishment of children should country foods become more scarce (Pyc, 1998: 85). With 70% of LRRCN collecting some form of social assistance (Webb, 2001), the value of country foods for alleviating poverty cannot be overstated.

Methodological issues aside, it is still easier to quantify the economic value of country foods than their cultural value, but this should by no means allow their cultural value to be eclipsed by figures and calculations. Although it may be more difficult to illustrate the links between country food consumption and personal well-being, it is vital that we not ignore this relationship (Freeman, 1988). The act of going to the bush to hunt or gather is only the beginning of the process that defines Cree relationships to the land and animals; consumption is the culmination. Eating bush foods is a means of enacting the relationship of humans to animals, and is in effect an important expression of Cree identity. This expression may be especially significant for those who are unable to spend as much time as they would like in the bush, such as elders or students (Condon et. al., 1995). During a videotaped interview, Clifford Ribbonleg of Fox Lake told me about giving food to elders: "When you go home, and you give it to them, and the smile you get, that's all you need…Especially when you tell them where you got it, the memory comes back [for them]". The food becomes a focal point for the person's ties to the lands and animals which have sustained them and their ancestors. The association of Cree identity with bush food is further illustrated by the way that they associate store-bought foods with outsiders. The dichotomy was most often expressed to me as "Indian food" vs. "white-man food", rather than bush food vs. store bought food. Country foods are often a focal point of aboriginal ceremonial practices (Orchard, 2001; Brightman, 1993), but even regular daily use remains a strong symbolic expression and enactment of identity.

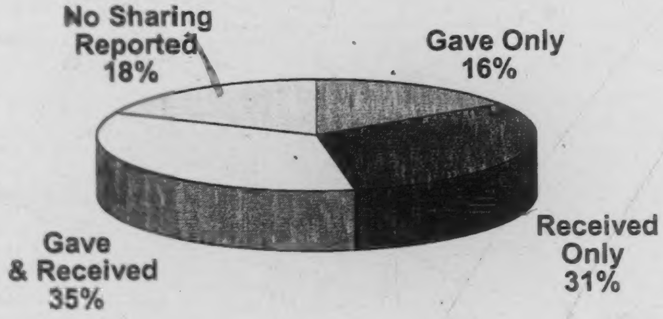
The sharing of country foods is also one of the defining elements of aboriginal subsistence harvesting. While any hunter technically has the right to retain an entire kill for himself, to do so would be socially unthinkable. For nomadic hunter-gatherer peoples, this social norm of open sharing has served as a form of insurance against periods of scarcity or bad luck (Orchard, 2001). Yet, even now that starvation is no longer a threat, the sharing ideal is as strong as ever. Practical issues aside, to share is to maintain a respectful relationship with animals; "You treat it like a gift," as one man told me. To give to others is to acknowledge that the food has been given to the hunter, rather than taken (Nuttall, 1992: 142). The ideology of giving bush food is every bit as important, and I would argue more so, than the gift itself. As Wenzel (1991: 102) notes, and as several Crees told me, the size of the gift does not matter, only that it is given.

The distribution of country foods may also reflect (and thereby reinforce) the social structure of aboriginal cultures. Various researchers have documented several systems of food-sharing among Copper and Netsilik Inuit over the years, including the *piqatigiit* (seal partnership) system (see Collings et al. [1998] for an overview). In many aboriginal societies, certain parts of harvested animals are given to people in specific social roles (e.g. the shooter, elder male or elder female). Among the Yup'ik, whales are divided up very meticulously and each part has an intended recipient (Jolles, 2002: 306-307). Among Rock Crees, the front quarters of many animals were traditionally eaten by females, while the hind quarters belonged to the men (Brightman, 1993). During my fieldwork, I was present for the butchering of one moose and one bear, but I was unable to track the distribution of the meat accurately enough to determine if any such norms are followed in the LRRCN. Hunters did, however, explicitly state that everyone involved in the hunt and butchering (myself included) gets an equal share, and it is quite possible that the division of meats cuts also reflects this egalitarian ideal.

Quantifying the distribution of bush foods is particularly difficult, partly because sharing often takes less than obvious forms. For example, when dry meat is sitting on a rack at a camp, everyone is expected to help themselves without invitation, including visitors. Working with Inuit, Condon et al. (1995) found that this open invitation applied to people's freezers at home as well, at least for their closer kin. Family members often helped themselves to a hunter's meat without discussion, making it impossible for that hunter to accurately estimate how much he gives and how often. Owing to these difficulties, our own harvest survey simply asked people to report whether or not they had given or received bush foods in 2000. 82 % of respondents reported being engaged in sharing, either by giving, receiving or both (Figure 4). This may actually be a low figure, as the 18% listed under "No Sharing Reported" in fact failed to answer the question at all. Further, many who stated that they "gave only" or "received only" may have failed to account for the kind of indirect sharing discussed above.

When asked who they typically shared with, most respondents gave rather broad answers, such as "everyone, all the time" and "friends and family, whenever". These responses reflect the ideal that sharing is simply a given, and is not ideally subject to boundaries. In closer conversations, however, interviewees often stated that it is becoming increasingly difficult to share with everyone who wants bush foods. There are simply more people than ever, and fewer of them are hunting. Thus, sharing is becoming somewhat more restricted to the extended family than in the past,[21] though some people continue to make a conscious effort to maintain extra-familial sharing, especially with elders. Sharing on this scale often requires that hunters retain little or no food for themselves. I participated in several hunts where some Crees gave away their entire share of the harvest. They spread this share between large numbers of people, even where it was possible for them to give away a substantial portion while still retaining some for themselves. One man stated that when he kills a moose, which yields around 200 kg of edible meat (Tobias and Kay, 1993), he often retains only enough for

Figure 4. Distribution of Bush Resources in the LRRCN, 2000 (By Household).



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[21] Collings et al. (1998) note the same reduction in extra-familial sharing among the Inuit of Holman Island.

one meal for his family. "Sometimes I wish there was more," he said, "so that we could have more for ourselves". This shortfall of county foods is likely to grow as Cree populations increase and more people must seek full-time employment, thus limiting their harvesting time.

3.2.4 Access to Hunting Grounds and Management of Harvests

Seasonal hunting camps are maintained in the same locations from year to year, and are occupied based upon kinship relations. Several nuclear families may often share one campsite, and even visitors are almost always related to the camp residents. Hunting sites are accessed from these camps, either by ATV's (all-terrain vehicles, i.e. "quads"), boat, or foot. While camps are situated close enough together that people may visit their neighbours, they are far enough apart that hunters are unlikely to encounter each other in the bush or to encroach upon each others' hunting activities. It is therefore fair to say that access to hunting lands in the LRRCN remains governed by kinship, as it was prior to settlement on reserves. Like other boreal forest aboriginal peoples, Crees traditionally followed a nomadic seasonal round by moving to different harvesting locations in extended family groups. Lore (1990) documents this pattern through historical records for the people who would eventually settle in the LRRCN. Family units would move into the bush for the winter and emerge again prior to the spring thaw in order to trade at the Hudson's Bay Company post at the Mekkwa River. While the duration and extent of these movements has changed in the modern LRRCN, kinship has remained as the fundamental unit for structuring subsistence harvesting activities, and indeed virtually all social interactions.

The seasonal camps of the Little Red River Cree and their surrounding hunting grounds may be compared to the "hunting territories" (as they have been labelled by anthropologists) found in the Cree and Innu societies of eastern Canada (Speck, 1915; Scott, 1986; Berkes et al., 1991, Feit, 1987), though some important differences are apparent. Families in the LRRCN are well aware of where others are camped and where they hunt. One of my research associates was able, upon request, to produce a map depicting the hunting territories of each extended family unit from Fox Lake. These territories taken together covered nearly all of the land south of the reserve, except for muskeg and swamps, for quite a distance. Several other hunters corroborated the accuracy of his map. While the boundaries of these territories appear static and rigid when drawn on a map, in actual practice they are more fluid both in both space and time. Like their eastern counterparts, these territories are not owned per se, but rather reflect rights of access that are based upon occupation and continual use (Tanner, 1986). Some camps may be located on the registered trapline of one of the residents, thereby indicating more formal right of access. In practice, however, the boundaries of a trapline (in this case, township sites) serve as a discrete border only for trapping activities, and are more flexible when it comes to subsistence hunting. Indeed, aboriginal hunters have made this distinction between commercial harvesting and subsistence harvesting for almost as long as they have been trapping (Krech 1999: 180) and continue to do so (Nelson, 1983: 217). Since trapping is currently a minimal practice, there remains little reason to enforce trapline boundaries.[22]

Unlike the family hunting territories of the eastern Cree, those of the LRRCN do not function as management units, at least not overtly. In the eastern territories, a "hunting boss" or "talleyman" (*okimah* in Cree) is appointed to oversee the harvests for each territory (Berkes et al., 1991; Scott 1986). This person dictates times and limits for harvests in order to balance the best return with sustainability. To my knowledge, no such institution exists among the Little Red River Cree, although elder family members no doubt have influence in these matters if need be. Reasons for this difference are uncertain. Indeed, the origin and impetus for the eastern hunting territories has been an enduring debate among anthropologists (see Tanner, 1986 for an overview). Many speculate that they arose as a response to the market potential of the fur-trade, yet contemporary ethnographers report active regulation of the harvesting of non-market species, such as moose (Feit,1987) and geese (Scott, 1989). The absence of hunting bosses among other aboriginal groups may be the product of subtle or locally specific differences in culture, history, or ecology. In any case, the absence of designated managers and overt harvesting restrictions does not mean that no regulation occurs. To limit the concept of conservation to these distinctly Western criteria is to ignore the complexity of Cree experiences on the landscape and their ideas of human relationships to animals. I wish to pursue this issue of conservation among aboriginal hunters for a moment, partly because it is central to harvesting sustainability, and partly because it is central to aboriginal rights of self-determination and desires to manage their own affairs. Both of these are critical elements of cultural sustainability.

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[22] It is, however, generally not permitted to establish any permanent camp or structure on another's trapline, such as a cabin, which would denote a permanent right of access. In one case I encountered, a man had to alter his plans to build a cabin when he discovered that his planned site was on someone else's trapline.

During the course of my fieldwork, I often approached the concept of conservation and management with hunters by asking them if they ever pass up a clear opportunity to take an animal for any reason. They replied that if they are "lucky" enough to see an animal, they will take it. This concept of luck was repeated to me again and again in the context of hunting. Paradoxically, the same hunters often spoke about animals giving themselves to hunters, a concept that is well-represented in the anthropological literature (Tanner, 1979; Brightman, 1993; Ingold, 2000; Feit, 1987). A conscious act of giving on the part of an animal would seem to contradict the characterization of hunting as luck or chance. These ideas of chance and agency can be reconciled if we think of luck as that which is beyond the control of the hunter, as I believe Crees do. As one hunter told me, when one kills an animal it is not because of anything that they did, but because of the animal. "Luck" therefore most accurately reflects the experience of the hunter, and does not imply unluckiness of the animal. Thus, when Crees are presented with an opportunity to take an animal, they conceive of it as a gift and treat it accordingly by accepting it. To do otherwise is to violate the essence of the respectful hunter's relationship to the animal. A white resident of the LRRCN told me of an experience in which he convinced a Cree fisherman to throw back a fish because it was too small. The fisherman was later upset with himself for refusing the gift, and regretted throwing the fish back.

The perception of animals as gifts may also be illustrated through an opposite-case scenario. During the summer of 2002, a large forest fire near Fox Lake drove several bison close to the reserve, where they were soon spotted. Young hunters wished to shoot the animals, but elders advised against it. In this case, the animals had not willingly given themselves, but were forced into a compromising situation. The older, wiser hunters did not wish to violate the relationship between people and bison by taking what had not been freely given.

This treatment of animals as gifts to be accepted when given has long been anathema to Western wildlife managers. Often this practice is incorporated into a rhetoric that labels aboriginal hunting as "wanton slaughter" (Campbell, In Press; Tough, 1992). In the minds of critics, taking all available "gifts" demonstrates a lack of awareness about population dynamics and lack of understanding about principles of conservation (see, for example, Howard and Widdowson, 1996: 35). However, when understood in the context of adaptive management, this practice seems more sensible. Aboriginal knowledge and management systems concerning ecology are indeed often characterized as adaptive rather than predictive (Berkes, 1993). In this view, ecosystems and their constituent elements are understood to be too complex to accurately predict. Animals are also understood to be active agents, making them even more difficult to predict. Instead of trying to anticipate long-term outcomes, one must adapt their practices and understanding as their experiences dictate. Thus, if one perceives a declining trend in moose populations, one should limit their harvest but should not feel compelled to obey an arbitrary and inflexible quota until that time.

In the LRRCN, hunters currently believe there to be a healthy population of moose in the general area based upon their hunting experiences (Pyc 1998: 123). They of course account for short-term fluctuations in coming to this conclusion. In my experience, the number of moose encountered by Cree hunters may vary widely from year to year. Several hunters reported to me harvesting over a dozen moose one year, none the next, and four or five the year after. At the same time, one hunter may have encountered no moose the same year that another encountered a dozen.[23] This unpredictability re-enforces the concept of luck, and the belief that the success of the hunt is beyond the control of the hunter. It also dissuades one from limiting their harvest from year to year. So long as there is no long-term decline of moose numbers, hunters have little reason to believe that their actions are adversely affecting the moose population. One interviewee expressed frustration to me about moose population estimates by wildlife managers, stating that they often misconstrue a low census result with species decline. Garden River hunters told Pyc that they seek out new harvesting areas when they perceive declining moose sign in their current areas (1998: 69). This functions as a conservation tactic, but on a more pragmatic level it is also an effort to find moose. Looking elsewhere for moose in effect allows low-population areas to lie fallow for a time, while seeking out more productive areas. Feit (1987) also notes this fallowing practice for moose hunting territories among the Waswanipi Cree (though in that case it is regulated by a hunting boss).

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[23] In cases where large numbers of moose are killed at once, the first action taken is to return to camp or town to gather people to aid with the butchering and retrieval of these animals. It is quite common for seven to ten people to work together on one animal. These people all receive a large portion of meat, and are not likely to hunt again until the meat supply is exhausted. In effect, this levels out the overall harvest.

LRRCN hunters have, in other known cases, consciously limited their harvests in cases where circumstances warrant it. Bison are not currently hunted within the LRRCN, or at least very rarely, because of dwindling numbers caused by disease. In fact, the Nation has somewhat reluctantly assumed a stewardship role in an effort to help the population recover (LRRCN, 2001b). Elders are hesitant to interfere in the lives of the bison, which they consider to be sentient and self-sufficient beings. However, they acknowledge that extenuating circumstances (in this case the introduction of foreign diseases among the bison) necessitate a degree of interference on their part.

3.2.5 Summary of the Harvesting Regime

Despite changes in extent and intensity, subsistence harvesting in the LRRCN today remains unchanged from that of the past in terms of its fundamental structural organization. Harvesting effort remains most focussed at peak production times, and more sporadic and opportunistic at others. The extended family remains as the fundamental unit of social organization for harvesting activities and access to resources. Management of harvesting efforts and returns continues to be adaptive in nature, and is dictated by the collective experiences of hunters on the land. Most importantly, the ideology of respect in relationships between humans and animals still informs all aspects of harvesting, from decisions about where to hunt and for how long, to the distribution of county foods among one's family and friends.

3.3 Potential Impacts of a Diminished Harvesting Regime

Despite the high degree of continuity between present and past harvesting, there is cause for concern regarding the changes that have occurred. In addition to the environmental impacts of industrial forestry and oil & gas exploration, there are sometimes difficulties in reconciling intensive harvesting with new social structures, including sedentary living in a capitalist economy. Some general impacts of culture change in Cree communities were touched upon in the introductory section. These included alcoholism, physical abuse, suicide, and a general feeling of loss and anomie. The specific ways in which these problems manifest themselves may now be more clearly understood based upon an understanding of the harvesting regime and its social context.

For countless generations, the family unit has defined the Cree hunting and gathering group, and vice versa. Subsistence harvesting remains one of the primary activities for actualizing kin relationships through shared activity. Harvesting activity also serves to express a sacred worldview, which binds people together on a level not experienced in other commonly shared activities, such as games and crafting. Without this common experience, kinship structures are not maintained and strengthened. Consanguinal and affinal relationships (e.g. mother, uncle, sister-in-law) of course remain, but the substance of those relationships is diminished without the connection offered by shared experience. This effectively weakens the social fabric that has provided stability and support for generations of Crees. For those who can not or do not hunt, alternatives are limited. Local jobs are few, and even if obtained do not very well replace the spiritual element of the bush lifestyle. For example, men who do not hunt and are unemployed of course retain their position as father, brother, son-in-law, etc. within their family, but locally-conducted research indicates their social role is greatly reduced, resulting in a sense of being "lost" (Crabbé, 1998). In contrast, those who retain the bush lifestyle, with all its concurrent social context, are better able to "cope" with the stresses of modern life (*ibid.*).

Kin relationships are not only maintained through the shared act of harvesting, but also through the distribution and consumption of country foods. Without any foods to share, these social networks would be lost, along with all of their positive influences. As Jolles (2002: 314) notes, the importance of food in constituting identity and relationships is frequently underestimated vis a vis the actual harvesting practice. The sharing of country foods along with shared consumption expresses a whole range of sacred beliefs and values that are not embodied in more secular activities.

A diminished harvesting regime would of course have more practical impacts as well. The potential economic losses have been well illustrated in the previous section, along with increased risk of malnutrition. Less obvious, however, is the potential loss of future access to harvesting lands through atrophy of current use. The hunting territories discussed in the previous section are not owned, per se, but are occupied based upon a recognized usufruct right. Should a kin group cease to use a territory for several seasons in a row, another group may justifiably occupy it for subsistence purposes.[24] If this were to occur, reviving one's harvesting activities might require travelling beyond the boundary of the existing LRRCN land-use area, possibly into more marginal hunting grounds and probably into closer proximity with other rural communities and industrial development.

Diminished harvesting might also allow industrial developers to encroach upon previously used territories without fear of violating treaty rights. An inter-generational reduction in lifetime land-use is already evident in the LRRCN, a "shrinking circle" from a mapping perspective (Pyc, 1998: 120). The demise of the trapping economy has played a large role in this reduction. During a mapping interview, one man expressed concern that the area he outlined on the map would be taken as the extent of the LRRCN traditional territory, when in fact both he and previous generations of his family had extended this area much farther. He worried that resource developers could use mapping information to justify operations in areas of past and potential future importance to LRRCN harvesters. Another man suggested that old trails should be kept open and old hunting areas occupied in order to preserve access for future generations.

Most Crees today desire a certain degree of mixed economy, which incorporates various levels of subsistence harvesting and wage labour. Yet, it is clear that they do not wish to abandon the traditional structure of their harvesting practices, which includes kinship-based land use and extensive stays in the bush, in order to achieve it; they are not content to become recreational hunters instead of subsistence hunters. Any mixed-economic strategy must therefore allow for the traditional mode of harvesting practice and production if it is to satisfy Cree cultural needs. However, some degree of incompatibility in the structures of the subsistence and market economies results in certain barriers that can inhibit the viability of hunting as a lifestyle or even sustained practice. These barriers are explored in detail in the following two sections.

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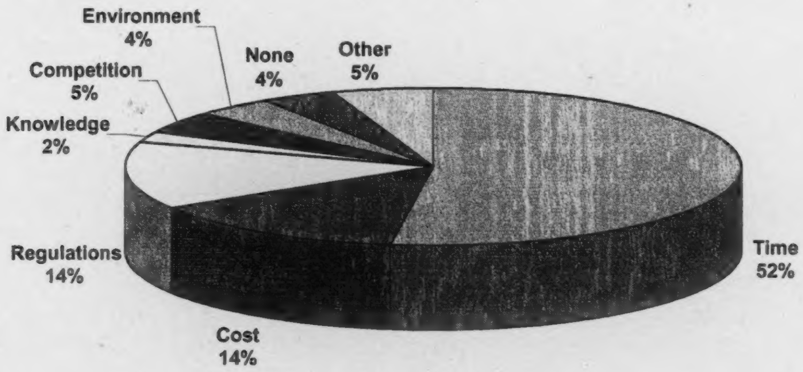
[24] The exception would be a hunting territory that lies on a registered trapline, which is not a usufruct right. However, other hunters may still hunt for subsistence purposes on an unused trapline.

3.4 Barriers to Subsistence Harvesting.

In order to establish a baseline by which to measure the scope of the barriers in question, respondents to the harvest survey were asked if they would spend more time in the bush if they could. The vast majority (92%) answered positively. They were next asked their perceptions of inter-generational access to bush resources: specifically, whether the previous generation had greater or lesser access, and whether the future generation will have greater or lesser access. The majority (69%) perceive a steady decline, in which the previous generation had greater access than they do, and the next generation will have even less access. Finally, the survey asked people to report any factors that they feel prevent them from getting out to the bush as much as they would like. The results are shown in Figure 5, and are summarized below.

Figure 5. Perceived Barriers to Harvesting.[25]



Time: For clarity, I have grouped several different responses under this heading, as they all reflect the essence of this barrier. Responses such as "kids in school", "kids play sports", "my job", and "husband works" are all basically about lack of time, though they of course all require individual solutions. If grouped this way, time barriers are by far the most common factor reported for inhibiting subsistence harvesting. In general, lack of time to devote to subsistence harvesting was a recurrent complaint about the contemporary lifestyle in the LRRCN.

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[25] The responses labelled as "Other" in Figure 5 include disease in animals, poor health, and lack of a hunting partner.

Lack of time may limit not only the duration spent in the bush on hunting trips, but may also inhibit one's ability to get there in the first place. Hunting territories often lie a good distance from the community, and require extensive travel time to reach. Inability to make these trips may relegate hunters to more easily accessible, though less productive, hunting areas along roads and cutlines. In the minds of many Crees, this barely qualifies as hunting, and provides none of the personal satisfaction of extended stays in the bush. As shall be demonstrated below, time functions in a reciprocal relationship with other barriers such as cost and knowledge.

Regulations: Most reports of regulations as a barrier come from Garden River, which lies within Wood Buffalo National Park (WBNP). The residents there are subject to federal regulations on their harvesting that are enforced by Parks Canada, several of which are quite limiting. Each hunter must obtain a license from Park officials, and is allowed to hunt only one moose per year. Moose hunting is prohibited altogether between June and September. The use of quads outside the settlement is prohibited and snowmobile use is allowed only for trapping purposes. Several Garden River residents have had ATV's confiscated by Parks officials in the past.

Regulations are beginning to arise as an issue outside WBNP as well. In the spring of 2002 (the year following the harvest survey), Provincial authorities attempted to enforce what they claimed was a long-standing ban on pickerel fishing during their spawning run. Several people fishing at the mouth of the Mekkwa River (a traditional and sacred gathering place for the Little Red River Cree) were threatened with prosecution if they failed to comply with this directive, which had never been locally heard of nor enforced previously. It is quite likely that "regulations" would be cited as a barrier more frequently if the harvest survey were conducted today.

Cost: This barrier is frequently discussed by social scientists who study changes to hunting and gathering cultures (e.g. Fienup-Riordan, 1986; Condon et al. 1995, Feit, 1982). Involvement in the fur trade created a dependence among aboriginal peoples upon newer technologies for use in subsistence harvesting. This demand has continued to grow as new technologies become more available and accessible. Once initiated, new technologies tend to permeate hunting activity very quickly, and it becomes very difficult to reverse this process. For example, quads only became available in Fox Lake in the early 1990's, prior to which people commonly used horses to reach their bush camps (John Laboucan, Personal Communication, Aug. 2002). Quads enable hunters to make a greater number of trips in a shorter time, thereby allowing them to incorporate other activities into their schedule. While there are still a few horses around Fox Lake, it would be very difficult for an individual who could not afford a quad to use one for harvesting. The infrastructure of harvesting has changed so as to discourage this; it would be difficult for the horse-based hunter to co-ordinate activities with quad-based hunters, to obtain the needed tack, saddlebags, and gear, or even to access certain areas. Several swamps that lie between the community and hunting grounds now have makeshift bridges that are passable for a quad, but not stable enough for a horse with a load. This is but one example of the many changes in standards concerning hunting, which are practically speaking very difficult to reverse even if one wished it. Transportation is generally the greatest cost associated with contemporary harvesting (Feit, 1982), and results at least in part from the time demands of modern life. Employed hunters must often make frequent short weekend trips to the bush if they are to make any, thereby necessitating speedy transportation. Other large expenses include firearms, ammunition, tents, and food.

Response bias may have reduced the frequency of cost as a reported barrier. We found a relatively low level of unemployment among the survey respondents (29%) when compared with the conservative estimate of 70% unemployment for the Nation as a whole (Webb, 2001). Possibly those with employment were also more likely to exhibit the motivation to participate in the survey. Further, employed members of the surveyed households may have reported only on their own barriers, and not those of unemployed household members.

Competition: This barrier was reported quite infrequently (5%). Competition amongst Nation members for hunting grounds is rare at this point, although one interviewee commented that some younger hunters have problems finding new places to hunt during the moose rut (see section 4.1). There is a minimal degree of competition with non-aboriginal hunters and outfitters, but this has not as yet been disruptive for many people. Several families who formerly hunted along the western boundary of WBNP have left the area because of a bear outfitter operating there. Another family reported encountering a Calgary-based moose outfitter on their hunting grounds for the past two years. Even a sparse number of encounters, however, can have a disruptive effect on Cree harvesting practices. Those Crees with whom I discussed this issue are unlikely either to share a hunting area with outsiders or to overtly challenge their presence; they are more likely to move elsewhere. This is partly a reflection of Cree attitudes concerning confrontation, and partly a mistrust of outsiders. Cree hunters often report finding empty alcohol bottles at abandoned campsites, and doubt the judgement of what they consider to be inexperienced and careless trophy hunters. They are in fact more afraid of being shot than they are of sharing the land.

Environment: While many Crees are concerned with the impacts of industrial activities upon the ecosystem, these impacts do not yet appear to inhibit harvesting based on the survey results. Pollution and ecosystem alteration in the areas are at this point minimal enough that the current situation might be described as preventative. However, while these factors do not yet limit harvesting *activity*, they may affect harvesting *success*. Several older interviewees commented that hunting was easier in the past because animals were more abundant. They also commented on the changes in the seasonal behaviour of the Peace River and its tributaries, which are corroborated by the findings of the Northern River Basins Study (Alberta Environmental Protection, 1997). Since the W.C. Bennett Dam began operating on the Peace in northern B.C., water levels have generally declined and seasonal floods have ceased. This has affected the small creeks and marshes that previously served as travel routes and as good wildlife habitat. Many have dried up while others have become stagnant and contaminated. One elder man reported recently contracting "beaver fever" by drinking from a creek that he has used all his life.

Knowledge: It is interesting that knowledge (or lack thereof) was not more frequently cited as a harvesting barrier given the frequency with which it is discussed by community members, both in public and in the semi-directed interviews I conducted.

Pyc (1998) also encountered repeated concerns that younger hunters do not possess the same skills as their elders, and do not appear to be learning them. This knowledge gap is large enough that older hunters fear that the younger ones are "losing their culture" (Pyc, 1998: 72).

Respondents may have failed to report knowledge as a barrier for several reasons. First, the heads of the households who participated are probably older and may not feel that they lack the knowledge to spend time in the bush. Second, people may be reluctant to admit that their knowledge is lacking in some way. Finally, respondents may indeed perceive lack of knowledge to be a problem, but do not consider it a barrier to being in the bush or to harvesting (though it may be a barrier to success). For some people, this may indeed be the case, but for others, the knowledge gap deters the bush lifestyle. I asked an interviewee who is in his late-teens if he believed that the bush culture would continue, and if he would become an active hunter in the future. He was not optimistic, stating that "Maybe it would be different if I knew how to hunt". This somewhat surprised me, as this young man would be considered relatively knowledgeable for his age in a Euro-Canadian context. Clearly, he feels that his knowledge is insufficient in a Cree context.

3.5 Potential Solutions to Harvesting Barriers

While the effects of the barriers cited above may be summed up quite simply, generating solutions is much more complex. To do so is an attempt to reconcile lifestyles that are to some degree structurally incompatible, or at the very least not conducive to each other. Quite likely the impacts of modern lifestyles on traditional harvesting practices will never be fully eliminated, but they may be mitigated. Given the importance of these traditional practices to Cree identity and well-being, it is essential to persist in generating even imperfect solutions.

Time: There will undoubtedly be growing demands on the time of adult Crees as greater levels of education are sought, and as more people are able to find employment. Schoolchildren will continue to face the same time constraints already present. While there is no real way to avoid these demands, steps can be taken to mitigate their impacts on people's time.

Most of the jobs that are available in the communities are administered by the Nation. It is therefore quite possible to structure job schedules so as to ensure that those who wish to hunt have the time to do so, particularly during favourable hunting periods. Some employees might choose to accept a reduced salary in exchange for more holidays or leaves of absence. At present, the demands on the administrative infrastructure of the Nation are reasonable enough that such flexibility is possible.

Education is also administered by the Nation, although the schools must meet the basic Alberta curriculum requirements. This allows for some degree of freedom in allocating time towards bush activities. At present, the LRRCN schools are quite proactive in this regard. Children are generally encouraged to accompany their parents during the moose hunting season, and sometimes to incorporate their experiences into their schoolwork. Students might be required to keep a journal of their activities or to complete a writing exercise on their experience. This not only alleviates the time barrier for children, but for their parents as well, who might not wish to leave their children for long periods of time to go hunting. Another approach to this problem is the incorporation of bush time into the school curriculum. J.B. Sewepegaham School in Fox Lake has conducted an extended fall fieldtrip for its students over the last few years. Parents are encouraged to accompany their children on these trips, thereby facilitating some incorporation of the children's school lives and home lives. Unfortunately, extended fieldtrips can be expensive, and there is as yet no funding provided by the LRRCN Board of Education. The success of this program is largely because of the dedicated efforts of volunteers who attempt to raise money and provide supplies for the trips. It would be prudent to allocate band funds to this project, and to replicate it in Garden River and John D'or Prairie, in order to provide for its stability.

Many young people in the LRRCN are active in organized sports, as is the case with many aboriginal communities. Hockey, slow-pitch, and volleyball are especially popular. Some parents spend much time travelling in order to take their children to games, tournaments, and clinics. This issue will of course need to be addressed by individual families rather than on an institutional basis, since it represents a personal choice in allocating free time. The popularity of sports as a social activity, however, may make it increasingly difficult for parents to convince their children to favour bush activities over athletic ones. It is difficult for the quiet and subdued activities involved in the bush lifestyle to compete with the allure and excitement of sports. Indeed, Collings and Condon (1996) note that sports have replaced subsistence hunting as the primary social structure and determinant of prestige for many young aboriginal people.

Knowledge: This is undoubtedly the most difficult barrier to address, partly because it is the cumulative result of all other barriers acting in concert, and partly because it reflects a substantial change in Cree lifestyle and social organization that is impossible to reverse. Overcoming this barrier is therefore a long-term challenge, one in which great efforts will not necessarily yield immediate results. As Ingold (2000) points out, skills are too often discussed as though they behave in a genetic pattern, as if they are simply passed down from one generation to the next, much like genes. He counters that we should instead conceive of a process of “enskillment”, in which skills are grown in each individual, with room for variation and adaptation (Ingold, 2000: 138). They are therefore subject to the context of the learner, rather than existing outside them it in a superorganic fashion (to employ Alfred Kroeber’s concept of culture). I have presented in section 3.3 several possible explanations of why this barrier ranked low in the survey results, when it is in fact quite prevalent in the minds of Nation members. Because of the importance and complexity of this issue, I shall devote more time to addressing solutions than the survey results appear to warrant.

It is clear that Cree children’s life training and accumulation of knowledge must be woven in with the new institutions that characterize modern life, namely schooling. Living in the bush full-time is simply not an option for most people. I asked several elders if young people should focus more on learning about the bush, or if they should concentrate on schooling and jobs. They replied that school is most important because one can no longer live off the bush. Still, they said, it would be good if the youth could do both.

This is not to say that traditional Cree methods of teaching and learning should be subordinated to classroom learning. Indeed, it is unlikely that children could acquire much of the *knowledge* necessary for subsistence harvesting in this setting; they would instead be limited only to having *information.* This is a critical distinction. Within most aboriginal cultures, knowledge is considered to be the product of personal experience rather than the possession of information (Goulet, 1998). For example, I know that one can tell the difference between the tracks left in the late-spring by a moose that is pregnant and one that is not, because the hooves of the former tend to be more splayed than the latter. I cannot, however, translate this information into skilled practice on the land. To do so would require much experience and guidance from learned trackers, which of course cannot be achieved in the classroom. To employ Ingold's (2000) metaphor of growth again, skills are planted rather than implanted, and must be given fertile ground in which to develop. This ground exists out on the land, rather than inside the school.

It is therefore imperative that children are provided with the opportunity to spend a significant amount of time in the bush, and that this time is facilitated through the schools which have come to dominate their time. The fieldtrip program discussed under the "Time" heading in section 3.3 currently addresses this need in Fox Lake. However, similar efforts in the other two LRRCN communities have been more sporadic and of less duration. Taking thirty students to the bush for a week can be a costly endeavour, even if some gear is loaned to the program. As yet, there is no institutional support for this project because it lies outside the Alberta curriculum. It is essential that this situation is amended so as to consider the specific needs of First Nation's children by providing security for fieldtrip programs. Being in the bush should be considered a core program for Cree students, not an extra-curricular activity.

There are also more pedagogical reasons to doubt the appropriateness of the classroom as a venue for learning subsistence harvesting and related skills. Cree teaching styles have traditionally been indirect, and pupils learn from watching and questioning when needed, rather than through direct instruction. An interviewee explained to me that being in the bush with an elder is different from being in the classroom. There is more quiet time for reflection in order to absorb what one has learned. There is more independence for the pupil, and greater emphasis on self-sufficiency and individual practice rather than following rigid guidelines. Instructions are given when asked for. Indeed, it is rather contrary to Cree ideals to limit forcibly or direct the actions of another. It would be almost inconceivable for an elder to come into a classroom and "teach" a lesson on subsistence harvesting. When invited to the classroom, they tend to talk about their own experiences as an example for others to consider.

Crees also tend to be much more at ease and open to conversation about these topics when they are in the bush. I have experienced a marked difference between conducting interviews in town and in a camp. Those conducted in the bush tend to last longer, require less questioning or prompting on my part, and elicit more in depth and profound responses. The bush is considered an appropriate setting for discussing things that are considered sacred in nature, such as the human relationship and behaviour toward animals. Institutions such as schools, in contrast, are part of the secular or profane realm. While they are not prohibitive of such topics, they are certainly not inviting from an elder Cree's point of view. Transferring knowledge between these two settings is frequently problematic for those who attempt to integrate traditional culture with modern institutions. Kayas Cultural College has recently initiated a Cree Support Program (CSP) in order to develop a language and culture curriculum to be employed in the Nation's schools. The CSP co-ordinators are frequently required to deal with matters of protocol in the process of gathering learning materials for delivery in the classroom. Attempts to elicit stories from community members were largely unsuccessful until a teepee was constructed as an appropriate venue for conveying them.[26] Certain subjects were considered altogether inappropriate for schools. In early community consultation meetings, elders dismissed the possibility of teaching about medicinal plants in the classroom, stating that this is best conducted in the traditional person-to person manner (Tyler Tokaryk, Personal Communication, July 2002). This is a particularly sensitive subject in the LRRCN, where medicine is still considered very sacred and powerful, and where many protocols regarding the transference of this knowledge persist. Other aspects of traditional culture are more open to negotiation, but often the same tension remains.

Much of this tension results, I believe, from the persistence of Cree norms regarding teaching and learning, which are often incommensurate with Western ones.

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[26] Therrien and Laugrand (2001) experienced a similar problem when conducting a workshop on traditional medicine with Inuit elders. The elders' first request was to alter the setting of the room so that it more closely resembled a campsite out on the land, which they considered to be an appropriate venue for discussing such things.

Knowledge and power are considered to be the products of experience rather than the possession of information, so one must therefore learn by doing, not by being told. Further, it is poor etiquette to claim publicly to be knowledgeable, directly or indirectly, by stating so or by offering knowledge to people who have not respectfully requested it (e.g. through a gift of tobacco) for an appropriate reason. As one Cree person told me, "You are not supposed to put that stuff on display". Goulet notes this belief among the neighbouring Dene Tha: "[A] Dene's verbal claim that she or he is knowledgeable and powerful would be seen by other Dene as evidence that the speaker lacks knowledge and power" (1998: xxx). People are well aware of the challenges facing young learners today, and are eager to take proactive steps to help them. Yet, they are hesitant simply to abandon existing values in order to ease the transition. Despite new contexts, these values and their associated methods are sufficiently intact that Crees are reluctant to rely wholly upon the new institutions for enskillment. Many feel that to do so would compromise the integrity of sacred knowledge. Thus, when they do participate in this new arena, there are many questions and concerns: Are these things being treated as sacred? Are they being respected and delivered in an appropriate way? The best way to alleviate such concerns is to ensure a high degree of community control in these matters, which can be best achieved by focussing attention on the bush as a learning venue.

All this is not to say that the schools have no place in teaching the skills and beliefs of subsistence harvesting, only that the entire learning domain should not be transferred there. Certain exercises are well suited to the classroom, such as hide scraping or butchering.[27] It is also possible to plant knowledge before growing skills. Information about animals, animal parts, plants and other relevant items could be introduced in early grades before conducting field exercises. Fletcher (2001) has developed such a program in the form of an interactive CD-ROM for Innu students between grades 4 and 6. This is accompanied by a teacher's manual with lists of associated activities. These are useful exercises that can be conducted prior to fieldtrips, but should not be taken as an adequate substitute for time spent on the land.

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[27] J.B. Sewepegaham school conducted a hide scraping program in the fall of 2002. Community hunters were asked to loan their moose hides to the students to scrape and stretch for them.

Cost: For reasons cited above, cost is likely a more substantial barrier than indicated by the survey results. Further, cost functions in concert with time; many people are only able to meet the costs of harvesting because they have permanent full-time employment. These jobs limit the time that they can devote to harvesting, which was indeed a frequently cited barrier. Fienup-Riordan points out that hunters who work part-time or seasonally often have the best harvesting returns because they are best able to balance time and money (1986: 260). Unfortunately, they are often plagued by poor equipment that needs repair or replacement. Further, many younger hunters with families to support do not have the luxury of exchanging full-time for part-time employment. It is possible that many people would choose to focus more intensely on making their living through harvesting rather than through wage employment if they felt that this was possible in the face of the costs involved.

The most effective way to address this barrier would be the establishment of a guaranteed income program for subsistence hunters. Several such programs have already been established under various bodies, including two under the James Bay and Northern Quebec Agreement (JBNQA) (one administered to the Cree by the Quebec government, the other administered to the Inuit by the Kativik regional government in northern Quebec), and most recently a program run by Nunavut Tunngavik Inc (Royal Commission on Aboriginal Peoples [RCAP], 1996). The Crees' Income Security Program (ISP) under the JBNQA has received the most analysis because it is the oldest and most complex of the guaranteed income programs. Its mandate is to preserve sustainable harvesting as a viable way of life, recognizing its cultural significance to the James Bay Cree. The situation for them is much like the one I have described for the LRRCN: initial dependence upon fur markets, followed by drastically reduced fur prices and ever-increasing costs for hunting and camping equipment. Through the ISP, people can secure long-term access to funds that will allow them to remain on, or to return to, the land. Beneficiaries qualify for the program based upon the number of days they have spent in the bush (away from the settlement) over the past year (RCAP, 1996: 987). Those who have spent most of their time in town but who wish to return to harvesting qualify for funding based upon their stated intentions. Their funding for the following year is adjusted based on their time in the bush, which allows people to return to the land without being forced to endure initial start-up costs in order to prove their intentions. Several evaluations following the introduction of the program have revealed a positive reception and fulfillment of the stated goals. The average number of days per year spent on the land by practicing harvesters increased by 26% (from 170 to 214), and over 300 families used ISP funding to begin intensive harvesting (Feit, 1982: 69). Of these families, over 200 have remained in the program following the first year of funding. These tended to be families who had previous intensive harvesting experience but were forced to settle in town because they could not meet the expenses of long durations in the bush (*ibid.*).

An increase in the number of days spent hunting and the number of hunters might raise some concern about potential over-harvesting of the animal populations. This possibility is partly mitigated by the structure of the ISP, which pays beneficiaries based on their effort (i.e. days in the bush) rather than upon their harvesting returns. Over-harvesting is also likely to be avoided through strong taboos against wastage in modern aboriginal societies. Comparison of harvests before and after the introduction of the ISP do indeed demonstrate an increase in total big game and small game harvests, while other species remained constant (Scott, 1984: 82). This resulted from the presence of new hunters, as each individual hunter maintained their pre-ISP harvest level (*ibid.*). However, the increase levelled out in subsequent years, probably once people were able to adapt their practices to accommodate greater numbers of hunters (Scott and Feit, 1983). When more families began to produce meat for themselves, demand for this surplus decreased and people adjusted their harvest levels. This is consistent with cultural norms, and with economic analyses of hunter-gatherer societies; people are unlikely to expend effort on achieving a surplus that cannot be used (Sahlins, 1972).

It is also likely that increased numbers of hunters would equal expanded hunting territories. Scott (1984) notes that many hunters used ISP funds to fly into remote areas and to transport quads and generators there in order to extend their stays. It is possible to speculate on this matter for the LRRCN given the discussion of family hunting territories in section 3.2.2. Most of the available hunting grounds in the Nation are currently occupied based upon kinship units, and Crees are more likely to expand their territories rather than crowd one another. While some new hunting households might be incorporated into existing family territories, many would choose to travel beyond the current land-use area to establish new seasonal camps (see section 3.5). Hunting efforts would be spread over a larger area, thereby avoiding over-harvesting in the current hunting grounds.

From the perspective of the state, an ISP is a good alternative to social assistance payments. Unlike direct transfer payments, the ISP requires active participation by the recipient and promotes production, whereas welfare does not (RCAP, 1996: 985). It is thus probably better conceptualized as a subsidy of a cottage industry than as a transfer payment per se. Condon et al. found that many Inuit consider welfare to be detrimental to their community's health because it promotes laziness: "That's why them guys don't like to hunt anymore. They get free money, easy money from the government. Right there! Big spoiler for the younger people" (1995: 34). The ISP, on the other hand, promotes activities and attitudes that benefit both the individual and the community. Increasing the amount of time that hunters can spend in the bush can also prevent their economic marginalization. Guaranteed income programs which require the recipient to "earn" their payments are also consistent with the imminent changes to the welfare system, which will require recipients to fulfill certain obligations such as career counselling and pre-employment training before receiving welfare payment (Tyler Tokaryk, Personal Communication, August 2002). Unlike direct transfer payments, the ISP does not foster dependency but rather allows people to maintain traditional systems of self-sufficiency that have been upset by colonialism. Greater hunting productivity also allows hunters to continue make significant contributions to the family *vis a vis* wage-earners, thereby preserving egalitarian social ideals (Scott 1984: 83). Further, the ISP tends to promote family solidarity by allowing all the members to spend time in the bush. Feit reports that prior to the ISP, many all-male hunting camps had formed because there were insufficient funds to bring the entire family for an extended stay in the bush (1982: 66).

While the establishment of an ISP for the LRRCN would represent a long-term commitment to funding by the federal government, the cost would likely be less than that of the current welfare system, and probably less than that committed to the James Bay Cree under the JBNQA. This latter program came into effect in 1976, when most eastern Cree families spent the majority of the year in the bush. The situation was likely much the same at that time among the Little Red River Cree, but this is no longer the case today. One must factor in this difference if using the JBNQA program as a basis for anticipating the economic needs of a guaranteed income program for LRRCN hunters.

Competition: Limiting competition from outside hunters for the finite resources within the LRRCN traditional use area will most likely require co-ordination between the Nation and provincial wildlife managers. Efforts could be directed towards limiting the number of game tags awarded to recreational hunters and outfitters, and towards defining their geographic range such that it interferes with LRRCN harvesters as little as possible. At present, no such formal relationship exists. Wildlife management is not within the mandate of the Caribou-Lower Peace Co-operative Management Board discussed in section 2.3, as it makes recommendations to Alberta Sustainable Resource Development, rather than to Alberta Environment.

Nation members sometimes discuss the possibility of becoming outfitters themselves in order to have more control over outsiders' hunting on their traditional lands. Some also feel that the economic benefits generated by outsider's hunting should go to the Nation rather than to outfitters from the south. While this would certainly help the Nation put existing skills to use for economic growth, there are some concerns with such a plan. Some people are concerned that outfitting would represent a violation of Crees' relationship to animals because they do not perceive that non-aboriginal hunters have the same sacred relationship towards animals as they do. Further, it would represent a re-allocation of scarce resources from local harvesters to southern ones, which may be unacceptable to some. Outfitting is not unprecedented in the LRRCN, though. The Nation currently owns and operates a fishing lodge in the Caribou Mountains, which caters to southern sport fishers. However, this area is rarely used by local harvesters, and therefore the lodge does not interfere with local activity. Perhaps an outfitting operation that met this criterion might prove more acceptable to Nation members.

Regulations: This barrier will also need to be addressed through dialogue with external parties, and possibly through legal procedures. Efforts have been underway for several years to establish a co-operative management relationship between Parks Canada and the

LRRCN regarding WBNP (Pyc, 1998; Honda-McNeil, 2000), but have been largely unsuccessful to date. Precedents set in the relevant case law would seem to indicate that the infringements of Parks policy on treaty rights are not justified, and certainly have not included proper consultation. As mentioned above, Nation members living outside WBNP have only recently encountered regulations upon their harvesting activities in the form of fishing regulations. Some effort at dialogue with provincial wildlife managers was made, though no consensus was achieved and no long-term relationship was established.

3.6 Summary

Throughout this section, I have illustrated that the basic structure of the subsistence harvesting regime in the LRRCN today is an adapted version of that of the pre-settlement era. Despite changes in extent and intensity, the essential elements remain, including seasonal species focus, adaptive management, reciprocal exchange of country foods, and organization of harvesting activities along kinship lines. It is important to understand that it is this system and its character that give hunting and gathering their vitality in Cree culture. It is equally important to understand that Crees have not become recreational hunters by moving into permanent settlements with grocery stores. The harvest survey clearly demonstrates that the harvesting regime today remains productive in addition to remaining culturally meaningful.

Despite adaptations, several factors (mostly resulting from the switch to sedentary residence) threaten to reduce the viability of the traditional harvesting regime. Although these factors cannot be altogether eliminated, they can be systematically mitigated so as to preserve the practice of harvesting in a manner consistent with Cree desires. One cannot overstate the social, cultural, and spiritual significance of traditional hunting and gathering to the people in the LRRCN, where anyone under the age of 20 is likely just one generation away from a semi-nomadic subsistence lifestyle. The modest number of on-reserve career opportunities or other life-defining roles means that there are few alternatives for many young people who wish to remain in their communities, especially men. In such a case, the stability and empowerment offered by the bush lifestyle becomes a vital resource for people who are trying to negotiate a truce between old and new ways.

4. Conclusion: Subsistence Harvesting in the Modern World

4.1 Expectations of the Future LRRCN Harvesting Regime

In the discussion of cultural sustainability in section 1.1, I stated that this concept does not entail infinite and unchanging reproduction of the existing culture, but allows for adaptability and growth. Despite a great deal of continuity, it would be unreasonable to expect that the harvesting regime of the future will precisely replicate that of the past. It is possible to make some general predictions about the future of subsistence harvesting in the LRRCN based upon the results of the harvest survey and my fieldwork experiences.

Even if the recommendations discussed in the previous section were successfully implemented, this would not completely alleviate barriers to harvesting. It is clear that, for most people, harvesting intensity will remain decreased from that of previous generations. People will continue to devote a good portion of their time to the wage economy in order to satisfy current standards of living. Children will still need to spend most of their time in school in order to meet provincial education requirements, even if greater focus upon bush-time is incorporated into the curriculum. This does not necessarily indicate a failure to ensure harvesting security. The solutions presented above are not intended to recreate future harvesting in the image of the past, but rather to facilitate it within the context of modern life.

Reduced time devoted to harvesting will likely result in some level of skill-reduction among LRRCN harvesters. It seems unreasonable to expect that many future hunters will achieve the same skill level as their ancestors, who grew up and lived their entire lives in the bush. This does not necessarily forebode a Nation of "crow hunters". The number and prowess of skilled trackers will likely decrease, and the trend towards focussing hunting efforts on periods of predictability will continue, particularly in the face of time constraints. Given this inevitability, its seems prudent to focus upon laying the educational groundwork for younger hunters to develop the highest skill level possible, rather than perceiving and mourning a loss of culture.

Despite reduced time and other barriers, many young people still take up subsistence harvesting, and will continue to do so. Some become instantly interested from an early age, while others tend to acquire an interest as they become adults

(Hensel, 1992). This is especially true nowadays, when adolescence has emerged as an unprecedented life-stage in aboriginal communities (Condon, 1990). Teenagers now experience several years where they have no major responsibilities besides schooling, in which they are expected to “figure out” their future. Prior to sedentary life, Cree teenagers would already have been actively engaged in providing for their families through subsistence harvesting (and some still are). Subsistence harvesting is now a choice rather than a requirement. Exposing today’s young Crees to bush life and planting knowledge through school programs will keep this option open for them in subsequent years. As one elder told Pyc, “A person taught to hunt in the bush will always want to hunt in the bush” (1998: 70).

Kinship will almost certainly remain as the primary basis for organizing social activities in the LRRCN, including subsistence harvesting. The persistence of kinship structures through periods of rampant change has been documented in other aboriginal contexts, as well (e.g. Nuttall, 1992).The kinship system has remained intact throughout the major changes endured thus far, and it seems unlikely that any future changes will disrupt it significantly. Harvesting activities, access to lands, and country food distribution will continue to be governed through familial relations. New harvesters will continue to be incorporated into the existing family hunting territory system, either by joining existing camps or by expanding the network according to recognized norms. In comparing the lifetime land-use areas of older and younger Garden River hunters, Pyc documented a “shrinking circle phenomenon” (1998: 120). Once mapped, the border of the older hunters’ land-use areas formed a much larger area than those of the younger hunters, whose land-use tends to be more concentrated around the settlements. There is some evidence that this contraction has reached its practical limits, and that we may actually be witnessing the start of a “growing circle phenomenon” as population growth results in increased numbers of harvesters. Two families from Fox Lake have recently established seasonal hunting camps well beyond the boundary of the community’s current land-use area. This is an effort to achieve acceptable distance from other hunters and to access new moose populations. Other families have been venturing to Sulphur Lake (over 300 km south of the Nation) for several years now in order to establish their hunting camps. I was unable to determine who first camped in this area, or why this particular location was chosen. Moose hunting is reportedly good in the area, which was likely the determining factor, although kin relations to someone in the area may have been involved. Whatever the reason, the need to expand the existing harvesting territory may bring Nation members into increasing conflict with the forestry sector. In order to anticipate and mitigate such conflicts, it is vital that subsistence harvesting not be understood in static terms, particularly when interpreting geographic land-use data. It is not sufficient simply to plan cut block locations outside the borders of the currently documented harvesting area. The ecological impacts of industrial forestry upon all local animal and plant habitat must always be considered if the future needs of the Nation are to be properly accommodated.

This expansion of territory is indicative of another potential harvesting barrier: insufficient resources for a growing population of harvesters. Migration of hunters indicates a perception of insufficient, or at least inferior, numbers of moose within the Nation's traditional territory, as it is unlikely that these people would travel long distances if they felt their needs could be met at home. I have already discussed the shortfall of country foods within the community in section 3.2.3. It is probable that in the future there will not be enough game (especially moose) to supply all the hunters, never mind having enough meat to share with everybody. The results of the harvest survey, coupled with population projections from Woodrow and Campa (2001), allow us to perform a rough estimate of future moose needs within the LRRCN (Table 3). The surveyed households (sample size approx. 50%) reported harvesting 226 moose in 2000. We can therefore reasonably guess that about 450 moose were harvested in the Nation as a whole. Given that the population of the Nation is expected to double by 2026, by this time about 900 moose will be required per year in order to maintain current consumption ratios, assuming that the demand for moose remains constant.[28] It is doubtful whether the currently-used lands have the carrying capacity to support this harvest rate. Pyc's analysis of the Garden River moose harvest of 1997-98 (which accounts for cow/bull harvest ratios and calf mortality) suggests that it may already be near the limits of sustainability (1998: 62).

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[28] These are rough figures, as it is very difficult to predict future demand for moose meat. The numbers given should be considered conservative, since the number of moose taken does not appear sufficient to satisfy even the current demand, as discussed in section 2.3.4.

Table 3. Current and Projected Requirements for Moose

Year	LRRCN Population (Approx.)	Number of Moose Required
2000	5000	ca. 450
2026	10,000	ca. 900

In addition to promoting territorial expansion, this shortfall of game may also lead many future harvesters to expand the focus of the species they hunt. The Nation is already taking steps to facilitate this process. Through their co-operative management arrangement, they have been able to set aside almost 6000 km² of the Caribou Mountain plateau as an protected area, with the intent that Nation members may begin hunting the woodland caribou populations found there (LRRCN, 2000a). In addition, a bison recovery project has been in the initial stages for several years now, which presently includes monitoring existing herds and disease testing. Future plans include the reintroduction of captive herds into the area for eventual release into the wild. Bison were once an important food species for the Little Red River Cree, and by assuming a stewardship role, the Nation hopes that they may be so again (LRRCN, 2001b).

4.2 Regaining Cultural Authority

At the outset, I indicated that there exist two conflicting visions of subsistence harvesting in contemporary aboriginal cultures: one where harvesting persists as a fundamental part of life, and another where it is relegated to the realm of heritage, recreation, and is subordinate to capitalist economic structures. The latter view is held predominantly (though not exclusively) by Euro-Canadian people living outside First Nations communities, often by those who interact with aboriginal peoples in a market context. Indeed, similar views prevailed among the missionaries who introduced Catholicism to aboriginal cultures, who often believed that the new religion had supplanted traditional beliefs and practices. In fact, these beliefs persisted alongside the newly adopted ways, albeit often hidden from the eyes of the missionaries (Goulet, 1998: 215). The situation is analogous concerning subsistence harvesting in the LRRCN, where one can readily witness the continuing importance of these activities if one has an internal perspective. While Crees perceive many problems concerning cultural continuity, they do not consider harvesting a marginalized or subordinated lifestyle. Instead, the bush lifestyle persists alongside the capitalist economy and modern institutions, and has far deeper meaning in Cree culture than do jobs or classroom education, even though these things necessarily come to dominate their time.

While modern institutions do not immediately undermine the place of the bush lifestyle in Cree worldview, they do pose certain logistical barriers that inhibit harvesting. These institutions must be amended so that they accommodate the values that Crees desire, rather than simply replicating Euro-Canadian institutions and goals. At this point, we should recall the practice theory of Bourdieu discussed in section 1.3, because it is central to any discussion of aboriginal people assuming control over the social institutions that have been imposed by colonialism. Recall Bourdieu's concept of "fields", which delineates a group of people who share a common frame of cultural reference and common ideas about what constitutes proper, legitimate behaviour (the *habitus*) within that field. In addition to being sites of common belief and action, fields are also at times sites of struggle where individuals consciously and sub-consciously strategize in order to achieve legitimacy among (and sometimes power over) others. The winners of these struggles are able to dictate the bounds and the rules of the field. The field can be understood as the site of a game, where the *habitus* functions as the rules. Even where no concrete "prize" is apparent (e.g. money, political authority), people tend to orient their actions within the bounds of the *habitus* so that they maintain their legitimacy in the eyes of others. Legitimacy serves as a form of "symbolic capital" for individuals (Bourdieu, 1977: 40), which allows them to advance their position (their "social capital") within a field, or even possibly to challenge its parameters.

The issue of legitimacy within social fields, and the ability of individuals to redefine legitimacy, is of primary importance to aboriginal peoples, who have encountered a disparate degree of change in their social spaces over a relatively short period of time. These peoples could be seen as simultaneously residing within two overlapping fields that are at times in conflict with one another. For the purpose of this discussion, I shall refer to these as the "bush" and the "community" fields. The former encompasses the lifestyle that is considered "traditional", while the latter encompasses those modern institutions that have been introduced through colonialism, but have become entrenched within Cree lifestyle, including schooling, careers and wage employment, and Catholicism. These institutions were most often imposed as a means of redefining legitimacy within aboriginal cultures by turning "savages" of the bush into "civilized" people.[29] I employ the terms "traditional" and "modern" for heuristic purposes, while recognizing that the constitution of these terms is under a continual process of revision. While they are derived from disparate origins, these fields should be understood as often overlapping in the modern context.[30]

The rules of the community field (i.e. what constitutes success, acceptable behaviour, etc.) were initially dictated by the outsiders who established, and in many cases continue to operate, its institutions. However, as aboriginal peoples grow more acquainted with this field, they build the symbolic and social capital that is necessary to actively strategize within it and to influence its rules. Band councils are formed, and local people build the necessary skills to assume positions of bureaucratic authority. The question now becomes, how will aboriginal peoples make this community field articulate with the realm of the traditional in the future? This question is not asked from a relativist stance, which would see no basis for judging any one outcome against another. Postmodernist perspectives that allow for a new aboriginal identity based on a symbolic heritage fail to account for the importance of practice to cultural continuity and personal well-being, especially in rural communities; symbolism by itself is insufficient to achieve these ends in these settings. In addition, social values are quite often dependent upon the maintenance of social networks of interaction in order to enact them, as discussed in section 1.3. The social unity and cohesion that is achieved through these interactions would be lost should harvesting cease, with no adequate replacement being apparent. Thus, the reconciliation of disparate fields is less a question of social scientific inquiry than of quality of life issues for aboriginal peoples. The ability to accomplish this, and to successfully maintain practice, is essential for the continuity of Cree values and ideals that have a direct bearing on the well-being of individuals.

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[29] Though not prevalent in the LRRCN, farming was typically regarded by colonial administrators and missionaries in similar terms compared to hunting and gathering (see Carter, 1986).

[30] In the LRRCN, for example, those who are considered strongest in terms of traditional spirituality are most often also very pious Catholics. For them, these disparate traditions are not only reconcilable, but also reinforce one another.

As indicated above, I start from the premise that the traditional and the modern are not structurally incommensurable in any cognitive sense of the term. Aboriginal peoples can and do embrace aspects of both fields in their lives, often at the same time, without feeling conflicted or contradictory (Goulet, 1998). Yet, there may be many logistical barriers (conflicts of social structure, rather than of cognitive structure) that could impede those who seek to achieve a balance. The barriers that exist within the LRRCN typically result from the initial imposition and subsequent adoption of Euro-Canadian institutions. The solutions I and others have suggested may at times be difficult to implement, in that they often challenge the *habitus* of the community field. For example, educational administrators on the reserves, typically of Euro-Canadian descent, are often hesitant to promote experiential learning at the expense of classroom time and the more standard pedagogy. Experiential learning appears to be a very inefficient use of time when compared with the amount of information a student can internalize in a comparable amount of time in the classroom. Yet, changes to this dogma are not unrealistic, particularly as Crees begin to assume more positions of authority within their own administration (building social capital, in Bourdieu's terms). Newhouse and Chapman (1996) discuss ways that Euro-Canadian institutional structures that were introduced to First Nations communities through colonialism may be successfully renovated in order to reflect aboriginal desires and values. In their case studies, the authors found no structural barrier to institutional transformation that would prevent members of aboriginal organizations from fulfilling their bureaucratic purpose (e.g. education, justice, etc.) while working in a different bureaucratic configuration, one that is based upon more traditional aboriginal social organization and norms.

However, practice within any field always brings with it the threat of co-optation by its *habitus*, particularly when that field comes to represent a new social measure of legitimacy and success. Newhouse and Chapman (1996) found that attempts at institutional transformation failed where they did not have the personal support of those involved. In a less bureaucratic example, Collings and Condon (1996) document how the *habitus* of hockey (a very literal field, in the game-theory sense of the term) among the Inuit of Holman Island was initially defined according to local values such as humility, non-confrontation, and good-natured competition. Games were typically disorganized, with flexible teams of mixed ability, and no great emphasis on keeping score. Today, the game is played according to a more southern-style, which includes rigid rules, intense competition, bragging, and unsportsmanlike conduct, which all distinctly contradict traditional Inuit values (particularly aggressive confrontation; see Briggs, 1970). Hockey has become a new measure of social status, particularly among adolescents and young adults. This example is a microcosm to be sure, but it does effectively demonstrate how the *habitus* of a field (whether imposed forcibly or adopted willingly) can become dominant even when no overt coercion occurs. As Newhouse and Chapman (1996) discovered, the same potential exists in the day to day operation of band councils, band-owned companies, and locally operated services. This must be avoided within the LRRCN if the community field is to become more conducive to the bush lifestyle.

In addition to regaining authority within their own communities, Crees are struggling to build legitimacy and recognition in outside fields that impact their lives, commercial forestry being the one addressed here. First Nations in general need to gain access to these fields partly because they directly impact their traditional activities, and partly because aboriginal people must now participate in them for their livelihoods. No matter how the articulation between the traditional and the modern is formulated, life today will require access to financial resources in order to obtain the necessities of life, as well as some expected luxuries. At present, the LRRCN is engaging in commercial forestry and building relationships with the industry outside their Nation in order to meet their financial needs and protect their subsistence interests. The impacts of forestry activities on subsistence harvesting (primarily through habitat disruption) are relatively less complex than those of colonialism, but are equally difficult to mitigate owing to lack of First Nations authority within the upper echelons of resource management. As yet, the Nation has not capitulated to the norms of industrial forestry, and adamantly refuses to privilege financial gain at the expense of ecosystem health (LRRCN, 2001b). However, First Nations do not yet possess enough social capital within the forestry regime to help delegate its bounds or even to determine the nature of their participation.

No mechanisms as yet exist that would allow them to do so, though they will hopefully be established in the near future. These might include a framework for establishing true community forest tenures, which would permit a high degree of local management authority. The authority to determine the AAC for forests on traditional lands is of paramount importance if subsistence harvesting needs are to be reconciled with financial ones (Ross and Smith, 2002). Without this power, it becomes very difficult for First Nations to achieve a balance in their practices. The rules of the field (i.e. the forestry regime) force them to choose one at the expense of the other.

Ultimately, First Nations communities, along with their cultures, institutions, and their relationships to outsiders, come to be sites of negotiation, in which aboriginal people work to ensure the viability of a way of life that has defined their existence. This is a difficult task, one that at times requires people to overcome deeply entrenched dogmas and to reconcile seemingly disparate beliefs and practices. Certainly there is not one unified vision of how this task should be achieved, and the strain can sometimes cause divisions within communities (Natcher and Hickey, 2002). Years of colonialism and inconsideration have uprooted healthy and vital cultural systems, which are now trying to rebuild in the face of unprecedented change. Indeed, these cultures are often understood by aboriginal people themselves to be in a process of healing. This process should not be expected to occur overnight, and may in fact take generations. Regaining authority over their existence is absolutely essential for the healing of aboriginal cultures, as it was precisely the inability to control their lives during the colonial era that has led to the current situation. In the course of healing, many will look towards the past to guide them, and will take comfort in the security felt through a connection with those before them. For aboriginal people in rural communities such as the LRRCN, this connection is more than a symbolic glance over the shoulder. It is instead an act of shared experience of a life in the bush and on the land, with all the vitality that those experiences bring. The authority to define their lives will ensure that aboriginal people have the ability to maintain this connection through times of healing and into the future.

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